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Fisheries Review is intended to furnish fishery biologists with abstracts of current literature in sport fishery research and management.

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87-000001 Duarte, C. M.; J. Kalff and R. H. Peters. PATTERNS IN BIOMASS AND COVER OF AQUATIC MACROPHYTES IN LAKES. *Can. J. Fish. Aquatic Sci.* 43(10):1900-1908. 1986. In English with French summ. FR 32(1)
[Dep. Biol., McGill Univ., 1205 Ave. Docteur Penfield, Montreal, PQ H3A 1B1, Canada]

87-000002 John, D. M. THE INLAND WATERS OF TROPICAL WEST AFRICA. AN INTRODUCTION AND BOTANICAL REVIEW. *Ergeb. Limnol.* 23:1-244. 1986. FR 32(1)

87-000003 Schloesser, D. W. A FIELD GUIDE TO VALUABLE UNDERWATER AQUATIC PLANTS OF THE GREAT LAKES. *U.S. Fish Wildl. Serv. Great Lakes Fish. Lab. Contrib.* 644. 32p. 1986. FR 32(1)
[U.S. FWS, Great Lakes Fish. Lab., Ann Arbor, MI]

87-000004 Wattendorf, R. J. and R. S. Anderson. HYDRILLA CONSUMPTION BY TRIPLOID GRASS CARP. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:319-326. 1984. FR 32(1)
[Fish Cult. Res. Dev. Sect., Fla. Game Fresh Water Fish Comm., P.O. Box 1903, Eustis 32727]

GENERAL FISH CULTURE

87-000005 Avnimelech, Y. REACTIONS IN FISH POND SEDIMENTS AS INFERRED FROM SEDIMENT CORE DATA. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 41-54. 1984. FR 32(1)
[Soils Fertilizers Div., Fac. Agric. Eng., Technion-Israel Inst. Tech., Haifa 32000, Israel]

87-000006 Boyd, V. HIGH INTENSITY INDOOR AQUACULTURE. *Farm Pond Harvest* 18(2):10-11. 1984. FR 32(1)

87-000007 Buckley, L. M. EDUCATION IN SMALL-SCALE AQUACULTURE. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM7/7-MRM7/12. 1984. FR 32(1)
[Windward Commun. Coll., Kaneohe, HI]

87-000008 Healy, K. PEACE CORPS FISHERIES VOLUNTEERS: WORKING WITH LOCAL FARMERS AND FISHERMEN TO PRODUCE FOOD AND PROFIT. *Fisheries (Bull. Am. Fish. Soc.)* 11(6):12, 14-15. 1986. FR 32(1)

87-000009 Huner, J. V. and S. Naqvi. INVERTEBRATE FAUNAS AND CRAWFISH FOOD HABITS IN LOUISIANA CRAWFISH PONDS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:395-406. 1984. FR 32(1)
[Cent. Small Farm Res., Coll Agric., Southern Univ., Baton Rouge, LA 70813]

87-000010 Huner, J. V. AQUACULTURE IN THE SOUTHEAST. *Farm Pond Harvest* 20(4):15,28. 1986. FR 32(1)
[Coll. Agric., Cent. Small Farm Res., Southern Univ., Baton Rouge, LA 70813]

GENERAL FISH CULTURE (CONTINUED)

87-000011 Knox, M. FRESHWATER AQUACULTURE IN FLORIDA: HIGHLIGHTS OF A 1983 SURVEY. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:407-412. 1984. FR 32(1)
[Fla. Game Fresh Water Fish Comm., Aquacult. Proj., 820 E. Robson St., Lakeland 33805]

87-000012 McCoy, H. D. II. INTENSIVE CULTURE SYSTEMS PAST, PRESENT AND FUTURE. *Aquacult. Mag.* 12(6):32-35. 1986. FR 32(1)

87-000013 Otubusin, S. O. MODERN AQUACULTURE PRACTICES FOR INCREASED FISH PRODUCTION IN NIGERIA. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:89-104. 1983(1986). FR 32(1)
[Kainji Lake Res. Inst., P.M.B. 666, New Bussa, Nigeria]

87-000014 Sarig, S. TRENDS IN THE ISRAELI AQUACULTURE. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 1-6. 1984. FR 32(1)
[Lab. Res. Fish Dis., Nir David, 19150 Israel]

87-000015 Shultz, F. T. DEVELOPING A COMMERCIAL BREEDING PROGRAM. *Aquaculture* 57(1-4):65-76. 1986. FR 32(1)
[Anim. Breed. Consult., P.O. Box 313, Sonoma, CA 95476]

87-000016 Sivalingam, P. M. TRENDS IN AQUACULTURE DEVELOPMENT IN MALAYSIA. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM1/21-MRM1/26. 1984. FR 32(1)
[Sch. Biol. Sci. Malaysia, Univ. Sci. Malaysia, Minden, Penang, Malaysia]

87-000017 Uwate, K. R. and P. Kunatuba. AQUACULTURE DEVELOPMENT IN THE PACIFIC ISLANDS REGION. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM1/18-MRM1/20. 1984. FR 32(1)
[Pac. Isl. Dev. Prog., East-West Cent., Honolulu, HI]

87-000018 Van Rijn, J.; S. Diab and M. Shilo. MECHANISMS OF AMMONIA TRANSFORMATION IN FISH PONDS. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 17-40. 1984. FR 32(1)
[Microbiol. Molec. Ecol., Life Sci. Inst., Hebrew Univ. Jerusalem, Jerusalem, Israel]

TROUT AND SALMON CULTURE

87-000019 Brannas, E.; K. Brannas and L. Eriksson. EGG CHARACTERISTICS AND HATCHERY SURVIVAL IN A BALTIC SALMON, *SALMO SALAR* L., POPULATION. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 5-11. 1985. FR 32(1)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden]

87-000020 Bye, V. J. and R. F. Lincoln. COMMERCIAL METHODS FOR THE CONTROL OF SEXUAL MATURATION IN RAINBOW TROUT (*SALMO GAIRDNERI* R.). *Aquaculture* 57(1-4):299-309. 1986. FR 32(1)
[MAFF, Dir. Fish. Res., Fish. Lab., Lowestoft, Suffolk NR33 0HT, England]

87-000021 Clarke, W. C. and J. E. Shelbourn. DELAYED PHOTOPERIOD PRODUCES MORE UNIFORM GROWTH AND GREATER SEAWATER ADAPTABILITY IN UNDERYEARLING COHO SALMON (*ONCORHYNCHUS KISUTCH*). *Aquaculture* 56(3-4):287-299. 1986.

TROUT AND SALMON CULTURE (CONTINUED)

87-000021 CONTINUED FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-000022 Horstgen-Schwark, G.; H. Fricke and H. J. Langholz. THE EFFECT OF STRAIN CROSSING ON THE PRODUCTION PERFORMANCE IN RAINBOW TROUT. *Aquaculture* 57(1-4):141-152. 1986. FR 32(1)
[Inst. Tierzucht Haustiergenet., Univ. Gottingen, Albrecht-Thaer-Weg 1, 3400 Gottingen, West Germany]

87-000023 LeVander, L. and J. Shefler. McALLISTER CREEK HATCHERY AND WATER QUALITY EVALUATION 1986. *Wash. Dep. Fish Tech. Rep.* 92. iii+23p. 1986. FR 32(1)

87-000024 Siitonen, L. FACTORS AFFECTING GROWTH IN RAINBOW TROUT *(SALMO GAIRDNERI)* STOCKS. *Aquaculture* 57(1-4):185-191. 1986. FR 32(1)
[Agric. Res. Cent., Dep. Anim. Breeding, 31600 Jokioinen, Finland]

87-000025 Simon, R. C.; J. D. McIntyre and A. R. Hemmingsen. FAMILY SIZE AND EFFECTIVE POPULATION SIZE IN A HATCHERY STOCK OF COHO SALMON *(ONCORHYNCHUS KISUTCH). Can. J. Fish. Aquatic Sci.* 43(12):2434-2442. 1986. In English with French summ. FR 32(1)
[U.S. FWS, Box 700, Kearneysville, WV 25430]

WARMWATER CULTURE

87-000026 Abraham, M. and G. Sagi. PHOTOPERIOD REGIMES AND "PINEAL TREATMENT" AS A MEANS OF CONTROLLING GONADAL RECRUDESCENCE IN *LIZA RAMADA. Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 105-118. 1984. FR 32(1)
[Dep. Zool., Hebrew Univ. Jerusalem, Jerusalem, 91904 Israel]

87-000027 Adigun, N. O.; A. D. Antony and J. C. Barker. INDUCED SPAWNING OF AFRICAN CAT FISH *CLARIAS LAZERA* (C. AND V.) USING ACETONE DRIED CARP PITUITARY EXTRACT, DEOXYCORTICOSTERONE ACETATE AND HUMAN CHORIONIC GONADOTROPIN. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:108-112. 1983(1986). FR 32(1)
[Dep. Zool., Univ. Jos, Jos, Nigeria]

87-000028 Bondari, K. REPONSE OF CHANNEL CATFISH TO MULTI-FACTOR AND DIVERGENT SELECTION OF ECONOMIC TRAITS. *Aquaculture* 57(1-4):163-170. 1986. FR 32(1)
[Coastal Plain Exp. Stn., Univ. Ga., Tifton 31793]

87-000029 Burke, J. S. and D. R. Bayne. IMPACT OF PADDLEFISH ON PLANKTON AND WATER QUALITY OF CATFISH PONDS. *Prog. Fish-Cult.* 48(3):177-183. 1986. FR 32(1)
[Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

87-000030 Busch, R. L. THIRD-YEAR GROWTH OF CHANNEL CATFISH. *Prog. Fish-Cult.* 48(3):188-189. 1986. FR 32(1)
[Allen Corp., P.O. Box 848, Indianola, MS 38751]

WARMWATER CULTURE (CONTINUED)

87-000031 Degani, G. EFFECT OF DIETARY 17-β-ESTRADIOL AND 17-α-METHYLTESTOSTERONE ON GROWTH AND BODY COMPOSITION OF SLOW-GROWING ELVERS (*ANGUILLA ANGUILLA* L.). *Comp. Biochem. Physiol. Comp. Physiol.* 85(2):243-247. 1986. FR 32(1)
[MIGAL, Galilee Technol. Cent., Kiryat Shmona, 10200, Israel]

87-000032 Farquhar, B. W. EVALUATION OF FERTILIZATION TECHNIQUES USED IN STRIPED BASS, FLORIDA LARGEMOUTH BASS, AND SMALLMOUTH BASS REARING PONDS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:346-368. 1984. FR 32(1)
[Tex. Parks Wildl. Dep., 6200 Hatchery Rd., Ft. Worth 76114]

87-000033 Fridirici, C. T. and L. T. Beck. A TECHNIQUE FOR HATCHING EGGS OF CREVICE-SPAWNING MINNOWS. *Prog. Fish-Cult.* 48(3):228-229. 1986. FR 32(1)
[Pa. Power Light Aquacult. Proj., P.O. Box 221, York Haven, PA 17370]

87-000034 Guest, W. C. TRIHYBRID SUNFISHES: THEIR GROWTH, CATCHABILITY, AND REPRODUCTIVE SUCCESS COMPARED TO PARENTALS AND HYBRIDS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:421-435. 1984. FR 32(1)
[Ft. Worth Res. Unit, Tex. Parks Wildl. Dep., Ft. Worth 76114]

87-000035 Hopkins, K.; M. Hopkins; D. Leclercq and A. Aziz Al-Ameeri. TILAPIA CULTURE IN KUWAIT: A PRELIMINARY ECONOMIC ANALYSIS OF PRODUCTION SYSTEMS. *Kuwait Bull. Mar. Sci.* No. 7. p. 45-64. 1986. FR 32(1)
[Kuwait Inst. Sci. Res., Maricult. Fish Dep., 22017 Salmija, Kuwait]

87-000036 Hulata, G.; G. W. Wohlfarth and A. Halevy. MASS SELECTION FOR GROWTH RATE IN THE NILE TILAPIA *(OREOCHROMIS NILOTICUS). Aquaculture* 57(1-4):177-184. 1986. FR 32(1)
[Agric. Res. Organ., Fish Aquacult. Res. Stn., Dor, Mobile Hof Hacarmel 30820, Israel]

87-000037 Huner, J. V. CHANNEL CATFISH IN SMALL PONDS. *Farm Pond Harvest* 20(1):18-19,27-28. 1986. FR 32(1)
[Cent. Small Farm Res., Coll. Agric., Southern Univ., Baton Rouge, LA 70813]

87-000038 Huner, J. V. FLATHEAD CATFISH. *Farm Pond Harvest* 18(2):12-13,19,25. 1984. FR 32(1)
[Cent. Small Farm Res., Coll. Agric., Southern Univ., Baton Rouge, LA 70813]

87-000039 Huner, J. V. INTENSIVE CATFISH CULTURE. *Farm Pond Harvest* 16(4):14-16,25. 1982. FR 32(1)
[Cent. Small Farm Res., Coll. Agric., Southern Univ., Baton Rouge, LA 70813]

87-000040 Huner, J. V. THE WIPER. A HYBRID STRIPED BASS FOR RECREATIONAL PONDS? *Farm Pond Harvest* 19(3):12-13,27. 1985. FR 32(1)
[Cent. Small Farm Res., Coll. Agric., Southern Univ., Baton Rouge, LA 70813]

WARMWATER CULTURE (CONTINUED)

87-000041 Koops, H. PROSPECTS OF EEL CULTURE IN THE FEDERAL REPUBLIC OF GERMANY. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 7-16. 1984. FR 32(1)
[Inst. Kusten-Binnenfisch., Bundesforschungsanstalt Fisch., Palmaille 9, 2000 Hamburg 50, West Germany]

87-000042 Krasznai, Z. and T. Marian. SHOCK-INDUCED TRIPLOIDY AND ITS EFFECT ON GROWTH AND GONAD DEVELOPMENT OF THE EUROPEAN CATFISH, *SILURUS GLANIS* L. *J. Fish Biol.* 29(5):519-527. 1986. FR 32(1)
[Fish Cult. Res. Inst., H-5541 Szarvas, P.O. Box 47, Hungary]

87-000043 Lee, C. S.; G. M. Weber and C. S. Tamaru. EFFECT OF ORALLY-ADMINISTERED 17α-METHYLTESTOSTERONE ON SPERMATOGENESIS IN IMMATURE MILKFISH, *CHANOS CHANOS* FORSSKAL. *J. Fish Biol.* 29(5):567-572. 1986. FR 32(1)
[Oceanic Inst., Makapuu Point, Waimanalo, HI 96795]

87-000044 Lee, C.-S.; C. S. Tamaru; C. D. Kelley and J. E. Banno. INDUCED SPAWNING OF MILKFISH, *CHANOS CHANOS*, BY A SINGLE APPLICATION OF LHRH-ANALOGUE. *Aquaculture* 58(1-2):87-98. 1986. FR 32(1)
[Oceanic Inst., Makapuu Point, Waimanalo, HI 96795]

87-000045 Martin, M. STOCKING RATES FOR CATFISH CULTURE. *Aquacult. Mag.* 12(6):45-48. 1986. FR 32(1)
[U.S. FWS, Fish Farm. Exp. Stn., Stuttgart, AR]

87-000046 Nagarajaiah, C. S. and T. R. C. Gupta. SEASONAL FLUCTUATIONS OF PLANKTON IN BRACKISHWATER PONDS OF NETHRAVATI ESTUARY, MANGALORE--I. PHYTOPLANKTON. *Mysore J. Agric. Sci.* 19(2):115-120. 1985. FR 32(1)
[Coll. Fish., Univ. Agric. Sci., Mangalore 575 002, India]

87-000047 Okafor, L. I. FISH PRODUCTION FROM AQUATIC WEEDS. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:68-71. 1983(1986). FR 32(1)
[Lake Chad Res. Inst., P.M.B. 1293, Maiduguri, Nigeria]

87-000048 Shelton, W. L. BROODSTOCK DEVELOPMENT FOR MONOSEX PRODUCTION OF GRASS CARP. *Aquaculture* 57(1-4):311-319. 1986. FR 32(1)
[Zool. Dep., Univ. Okla., Norman 73019]

87-000049 Stephens, W. W. and L. W. Dorman. REPRODUCTIVE SUCCESS OF CHANNEL CATFISH IN A FARM SITUATION. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:369-373. 1984. FR 32(1)
[Rt. 1, Box 232, Silver City, MS 39166]

87-000050 Tommey, H.; M. Armstrong and L. Claybrook. THE CULTURE OF FINGERLING STRIPED BASS OVER BLUE CATFISH IN THE LAKE CATHERINE NURSERY POND. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 313. 1986. Abstract only. FR 32(1)
[Ark. Game Fish Comm., Rt. 1, Box 477, Hot Springs 71901]

87-000051 Ufodike, E. B. C. and G. N. Ugwuzor. EFFECTS OF FISH-MEAL, COW BLOOD-MEAL AND SORGHUM DIETS ON FOOD UTILIZATION AND GROWTH OF CAGE CULTURED *SAROTHERODON NILOTICUS*. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:84-88. 1983(1986). FR 32(1)
[Dep. Zool., Univ. Jos, Jos, Nigeria]

WARMWATER CULTURE (CONTINUED)

87-000052 Ufodike, E. B. C. and C. T. Madu. A PRELIMINARY INVESTIGATION INTO THE EFFECTS OF A SEX-REVERSAL ANDROGEN, METHYLTESTOSTERONE, ON FOOD UTILIZATION AND GROWTH OF *SAROTHERODON NILOTICUS* (L) FRY. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:72-75. 1983(1986). FR 32(1)
[Dep. Zool., Univ. Jos Plateau State, Nigeria]

87-000053 Van der Lingen, C. D. SPAWNING OF GALJOEN (*CORACINUS CAPENSIS* CUVIER) IN CAPTIVITY: A POTENTIAL NEW FISH SPECIES FOR MARICULTURE IN SOUTHERN AFRICA. *Aquaculture* 56(2):163-165. 1986. FR 32(1)
[Zool. Dep., Univ. Cape Town, Rondebosch 7700, South Africa]

87-000054 Villegas, C. T. and R. W. Doyle. DURATION OF FEEDING AND INDIRECT SELECTION FOR GROWTH OF TILAPIA. *Aquaculture* 57(1-4):89-92. 1986. FR 32(1)
[SEAFDEC, Tigbauan, Philippines]

87-000055 Wilson, T. A.; J. W. Foltz and W. R. Geddings. PRODUCTION OF PHYTOPLANKTIVOROUS SILVER CARP IN A EUTROPHIC DAIRY FARM IMPOUNDMENT. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:590-600. 1984. FR 32(1)
[Dep. Agric. Fish. Wildl., Clemson Univ., Clemson, SC 29631]

87-000056 Wohlfahrt, G. W.; B. Feneis; M. von Lukowicz and G. Hulata. APPLICATION OF SELECTIVE BREEDING OF THE COMMON CARP TO EUROPEAN AQUACULTURE. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 177-193. 1984. FR 32(1)
[Agric. Res. Organization, Fish Aquacult. Res. Stn., Dor, Israel]

87-000057 Yaron, Z.; A. Bogomolnaya and B. Levavi. A CALIBRATED CARP PITUITARY EXTRACT AS A SPAWNING-INDUCING AGENT. *Eur. Maricult. Soc. Publ.* No. 8. p. 151-168. 1984. FR 32(1)
[Dep. Zool., George S. Wise Fac. Life Sci., Tel Aviv Univ., Tel Aviv, 69978 Israel]

MARICULTURE

87-000058 Ben-Amotz, A. PRODUCTION OF NUTRITIONAL MICROPHYTOPLANKTON FOR USE AS FOOD IN MARINE FISH HATCHERIES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 195-200. 1984. FR 32(1)
[Israel Oceanogr. Limnol. Res., Tel-Shikmona, P.O.B. 8030 Haifa, 31 080, Israel]

87-000059 Benfey, T. J. and D. A. Methven. PILOT-SCALE REARING OF LARVAL AND JUVENILE LUMPFISH (*CYCLOPTERUS LUMPUS* L.), WITH SOME NOTES ON EARLY DEVELOPMENT. *Aquaculture* 56(3-4):301-306. 1986. FR 32(1)
[West Vancouver Lab., 4160 Marine Dr., West Vancouver, BC V7V 1N6, Canada]

87-000060 Ellner, S. P.; M. D. Krom and F. Brauer. MODELS OF PLANKTON-NUTRIENT DYNAMICS IN SEAWATER FISHPONDS. *Prog. IV Int. Congr. Ecol.* p. 141. 1986. Abstract only. FR 32(1)
[Univ. Tenn., Knoxville 37996]

MARICULTURE (CONTINUED)

87-000061 Jorstad, K. E. GENETIC STUDIES CONNECTED WITH ARTIFICIAL PROPAGATION OF COD (*GADUS MORHUA* L.). *Aquaculture* 57(1-4):227-238. 1986. FR 32(1)
[Dep. Aquacult., Inst. Mar. Res., Bergen, Norway]

87-000062 Piferrer, F.; M. Carrillo and S. Zanuy. [EFFECTS OF INJECTIONS OF 17α-METHYLTESTOSTERONE ON THE EXTERNAL FEATURES AND GROWTH OF JUVENILE SEA BASS (*DICENTRARCHUS LABRAX* L.).] *Invest. Pesq.* 50(2):213-225. 1986. In Spanish with English summ. FR 32(1)
[West Vancouver Lab., 4160 Marine Dr., Vancouver, BC V7V 1N6, Canada]

87-000063 Porter, C. and H. Gordin. DEVELOPMENT OF MARINE FISH CAGE CULTURE TECHNOLOGY FOR EXPOSED SITES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 69-71. 1984. Abstract only. FR 32(1)
[Natl. Cent. Maricult., Israel Oceanogr. Limnol. Res., P.O. Box 1212, Eilat, Israel 88112]

87-000064 Ramos, J. INDUCTION OF SPAWNING IN COMMON SOLE (*SOLEA SOLEA*) WITH HUMAN CHORIONIC GONADOTROPIN. *Aquaculture* 56(3-4):239-242. 1986. FR 32(1)
[Inst. Acuicult. Torre de la Sol, Ribera de Cabanes, Castellon, Spain]

FEEDS, FEEDING, AND NUTRITION

87-000065 Alexis, M. N.; V. Theochari and E. Papaparaskeva-Papoutsoglou. EFFECT OF DIET COMPOSITION AND PROTEIN LEVEL ON GROWTH, BODY COMPOSITION, HAEMATOLOGICAL CHARACTERISTICS AND COST OF PRODUCTION OF RAINBOW TROUT *(SALMO GAIRDNERI). Aquaculture* 58(1-2):75-85. 1986. FR 32(1)
[Natl. Cent. Mar. Res., GR-166 04 Elliniko, Greece]

87-000066 Degani, G. DIETARY EFFECTS OF LIPID SOURCE, LIPID LEVEL AND TEMPERATURE ON GROWTH OF GLASS EEL (*ANGUILLA ANGUILLA*). *Aquaculture* 56(3-4):207-214. 1986. FR 32(1)
[MIGAL, Galilee Technol. Cent., Kiryat Shmona, 10200 Israel]

87-000067 Fah, S. K. and C. Y. Leng. SOME STUDIES ON THE PROTEIN REQUIREMENT OF THE GUPPY, *POECILIA RETICULATA* (PETERS). *J. Aquaricult. Aquatic Sci.* 4(4):79-84. 1986. FR 32(1)
[Dep. Zool., Natl. Univ. Singapore, Lower Kent Ridge Rd., Singapore 0511]

87-000068 Gatlin, D. M. III; W. E. Poe; R. P. Wilson; A. J. Ainsworth and P. R. Bowser. EFFECTS OF STOCKING DENSITY AND VITAMIN C STATUS ON VITAMIN E-ADEQUATE AND VITAMIN E-DEFICIENT FINGERLING CHANNEL CATFISH. *Aquaculture* 56(3-4):187-195. 1986. FR 32(1)
[Univ. Ark., Agric. Exp. Stn., Pine Bluff, AR 71601]

87-000069 Harada, K.; K. Fukuda and M. Sugihara. STATISICAL EVALUATION OF CHEMOTAXES, WITH SPECIAL REFERENCE TO REPELLENCE ACTIVITY OF FOOD FOR ORIENTAL WEATHERFISH. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1215-1224. 1986. FR 32(1)
[Lab. Biochem., Dep. Food Sci. Technol., Shimonoseki Univ. Fish., Shimonoseki 759-65. Japan]

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

87-000070 Helfrich, L. A.; D. L. Weigmann and J. C. Dean. USE OF SEAFOOD PROCESSING WASTES (BLUE CRAB AND HERRING SCRAP) AS PROTEIN SUBSTITUTES IN RAINBOW TROUT DIETS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:383-394. 1984. FR 32(1)
[Dep. Fish. Wildl. Sci., VPI&SU, Blacksburg, VA 24061]

87-000071 Henken, A. M.; M. A. M. Machiels; W. Dekker and H. Hogendoorn. THE EFFECT OF DIETARY PROTEIN AND ENERGY CONTENT ON GROWTH RATE AND FEED UTILIZATOIN OF THE AFRICAN CATFISH *CLARIAS GARIEPINUS* (BURCHELL 1822). *Aquaculture* 58(1-2):55-74. 1986. FR 32(1)
[Dep. Fish. & Cult. Fish., Agric. Univ., P.O. Box 338, Wageningen, Netherlands]

87-000072 Katavic, I. DIET INVOLVEMENT IN MASS MORTALITY OF SEA BASS *(DICENTRARCHUS LABRAX)* LARVAE. *Aquaculture* 58(1-2):45-54. 1986. FR 32(1)
[Inst. Oceanogr. Fish., Split, Yugoslavia]

87-000073 Kenney, S. IN-HOUSE FOOD ALTERNATIVES FOR KEEPING DIFFICULT MARINE FISH. *Am. Assoc. Zool. Parks Aquariums Reg. Conf. Proc.* 1986: 473-476. 1986. FR 32(1)
[John G. Shedd Aquarium, Chicago, IL]

87-000074 Kissil, G. W. and J. Gropp. OPTIMAL PROTEIN-ENERGY RATIOS IN GILTHEAD BREAM *(SPARUS AURATA)* FEEDS. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 99-101. 1984. Abstract only. FR 32(1)
[Natl. Cent. Maricult., Israel Oceanogr. Limnol. Res., P.O. Box 1212, Elat Israel]

87-000075 Koven, W. M. and G. W. Kissil. REQUIREMENT FOR ω3 POLYUNSATURATED FATTY ACIDS IN THE GILTHEAD SEABREAM *(SPARUS AURATA). Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 93-97. 1984. FR 32(1)
[Natl. Cent. Maricult., Israel Oceanogr. Limnol. Res., Elat, Israel]

87-000076 Luczynski, M.; P. Majkowski; R. Bardega and K. Dabrowski. REARING OF LARVAE OF FOUR COREGONID SPECIES USING DRY AND LIVE FOOD. *Aquaculture* 56(3-4):179-185. 1986. FR 32(1)
[Dep. Basic Fish. Sci., Acad. Agric. Technol., 10-957 Alsztyn-Kortowo Bl. 37, Poland]

87-000077 Menton, D. J.; S. J. Slinger and J. W. Hilton. UTILIZATION OF FREE GLYCEROL AS A SOURCE OF DIETARY ENERGY IN RAINBOW TROUT (*SALMO GAIRDNERI*). *Aquaculture* 56(3-4):215-227. 1986. FR 32(1)
[J. W. Hilton: Dep. Nutr. Sci., Coll. Biol. Sci., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000078 Meriwether, F. H. AN INEXPENSIVE DEMAND FEEDER FOR CAGE-REARED TILAPIA. *Prog. Fish-Cult.* 48(3):226-228. 1986. FR 32(1)
[Agric. Exp. Stn., Univ. Ark., Pine Bluff, AR 71601]

87-000079 Murai, T.; H. Ogata; P. Kosutarak and S. Arai. EFFECTS OF AMINO ACID SUPPLEMENTATION AND METHANOL TREATMENT ON UTILIZATION OF SOY FLOUR BY FINGERLING CARP. *Aquaculture* 56(3-4):197-206. 1986. FR 32(1)
[Fish. Nutr. Div., Natl. Res. Inst. Aquacult., Tamaki, Mie 519-04, Japan]

FEEDS, FEEDING, AND NUTRITION (CONTINUED)

87-000080 New, M. B. AQUACULTURE DIETS OF POSTLARVAL MARINE FISH OF THE SUPER-FAMILY *PERCOIDAE*, WITH SPECIAL REFERENCE TO SEA BASS, SEA BREAMS, GROUPERS AND YELLOWTAIL: A REVIEW. *Kuwait Bull. Mar. Sci.* No. 7. p. 75-148. 1986. FR 32(1)
[Wroxton Lodge, Institute Rd., Marlow, Buckshire SL7 1BJ, England]

87-000081 Pantastico, J. B.; J. P. Baldia and D. M. Reyes, Jr. FEED PREFERENCE OF MILKFISH (*CHANOS CHANOS* FORSSKAL) FRY GIVEN DIFFERENT ALGAL SPECIES AS NATURAL FEED. *Aquaculture* 56(3-4):169-178. 1986. FR 32(1)
[Binangonan Res. Stn., SEAFDEC Aquacult. Dep., Binangonan Rizal, Philippines]

87-000082 Takii, K.; S. Shimeno; M. Takeda and S. Kamekawa. THE EFFECT OF FEEDING STIMULANTS IN DIET ON DIGESTIVE ENZYME ACTIVITIES OF EEL. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1449-1454. 1986. FR 32(1)
[Lab. Fish Nutr., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

87-000083 Ufodike, E. B. C. and A. J. Matty. NUTRIENT DIGESTIBILITY AND GROWTH RESPONSE OF RAINBOW TROUT *(SALMO GAIRDNERI)* FED DIFFERENT CARBOHYDRATE TYPES. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:76-83. 1983(1986). FR 32(1)
[Fish Hydrobiol. Res. Unit, Dep. Zool., Univ. Jos, Jos, Nigeria]

87-000084 Van der Wal, E. J. and J. A. Nell. EFFECT OF FOOD CONCENTRATION ON THE SURVIVAL AND GROWTH OF AUSTRALIAN BASS *(MACQUARIA NOVEMACULEATA)* LARVAE. *Prog. Fish-Cult.* 48(3):202-204. 1986. FR 32(1)
[Dep. Agric., Brackish Water Fish Cult. Res. Stn., Salamander Bay, N.S.W. 2301, Australia]

87-000085 Wekell, J. C.; K. D. Shearer and E. J. Gauglitz, Jr. ZINC SUPPLEMENTATION OF TROUT DIETS: TISSUE INDICATORS OF BODY ZINC STATUS. *Prog. Fish-Cult.* 48(3):205-212. 1986. FR 32(1)
[NMFS, 2725 Montlake Blvd. East, Seattle, WA 98112]

87-000086 Yone, Y.; M. Furuichi and K. Urano. EFFECTS OF DIETARY WAKAME *UNDARIA PENATIFIDA* AND *ASCOPHYLLUM NODOSUM* SUPPLEMENTS ON GROWTH, FEED EFFICIENCY, AND PROXIMATE COMPOSITIONS OF LIVER AND MUSCLE OF RED SEA BREAM. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1465-1468. 1986. FR 32(1)
[Fish. Res. Lab., Kyushu Univ., Tsuyazaki, Fukuoko 8-11-33, Japan]

87-000087 Yurkowski, M. SUITABILITY OF TWO RAINBOW TROUT *(SALMO GAIRDNERI)* REFERENCE DIETS FOR ARCTIC CHARR *(SALVELINUS ALPINUS)*. *Can. Tech. Rep. Fish. Aquatic Sci.* No. 1464. iv+10p. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Oceans, Winnipeg, MB R3T 2N6, Canada]

TRANSPORTING FISH

87-000088 Brandt, T. M.; R. M. Jones, Jr. and J. R. Koke. CORNEAL CLOUDINESS IN TRANSPORTED LARGEMOUTH BASS. *Prog. Fish-Cult.* 48(3):199-201. 1986. FR 32(1)
[U.S. FWS, Rt. 1, Box 159-D, San Marcos, TX 78666]

AQUARIUMS

87-000089 Hunziker, R. E. III. THE MARINE AQUARIUM MADE EASY. PART 3: FISHES. *Trop. Fish Hobbyist* 35(4):10-14, 16-17, 20-27. 1986. FR 32(1)

87-000090 Kadlec, J. THE GABON JEWEL: *DIAPTERON CYANOSTICTUM*. *Trop. Fish Hobbyist* 35(4):56-59. 1986. FR 32(1)

87-000091 Richter, H. SPAWNING THE RED-SPOTTED PANCHAX, *EPIPLATYS LAMOTTEI*. *Trop. Fish Hobbyist* 35(3):26-27, 30-31, 34. 1986. FR 32(1)

87-000092 Sands, D. D. CATFISHES IN AQUARIA, PART 3: THE MOCHOKIDS. *Trop. Fish Hobbyist* 35(4):72-73, 76-77, 80-81. 1986. FR 32(1)

87-000093 Sands, D. D. CATFISHES IN AQUARIA. PART TWO--THE ASPREDINIDS OR "BANJA-MEN". *Trop. Fish Hobbyist* 35(3):48-49, 52, 54-55, 56-58, 61. 1986. FR 32(1)

87-000094 Teats, K. and B. Teats. A BLACK CAT THAT RARELY CROSSES YOUR PATH, *TRACHYCORYSTES TRACHYCORYSTES*. *Trop. Fish Hobbyist* 35(4):30-32, 34, 36-37. 1986. FR 32(1)

MISCELLANEOUS CULTURE TECHNIQUES AND EQUIPMENT

87-000095 Fuss, J. T. DESIGN AND APPLICATION OF VACUUM DEGASSERS. *Prog. Fish-Cult.* 48(3):215-221. 1986. FR 32(1)
[U.S. FWS, RD 4, Box 63, Wellsboro, PA 16901]

87-000096 Hilge, V. and U. V. Rakelmann. LABORATORY SCALE EXPERIMENTS ON THE NITRIFICATION OF FISH TANK EFFLUENTS IN A FIXED BED REACTOR. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 55-66. 1984. FR 32(1)
[Inst. Kusten-Binnenfisch., Bundesforschungsanstalt Fisch., Austenstelle Ahrensburg, Wulfsdorfer Weg, 2070 Ahrensburg, West Germany]

87-000097 Kruner, G. and H. Rosenthal. START-UP PHASE OF A BIOLOGICAL FILTER USING TWO SUBSTRATES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 67-68. 1984. Abstract only. FR 32(1)
[Biol. Anstalt Helgoland, Zentrale Hamburg, Notkestr. 31, 2000 Hamburg 52, West Germany]

87-000098 Lohr, A. L. and J. B. Gratzek. THE EFFECTS OF AN ACTIVATED AIR OXIDANT ON SELECTED WATER QUALITY PARAMETERS IN A CLOSED AQUATIC SYSTEM. *J. Aquaricult. Aquatic Sci.* 4(4):85-93. 1986. FR 32(1)
[Dep. Med. Microbiol., Coll. Vet. Med., Univ. Ga., Athens 30602]

87-000099 Strange, D. J. THE USE OF BIODISC FILTRATION IN INTENSIVE FISH CULTURE SYSTEMS. *Am. Assoc. Zool. Parks Aquariums Reg. Conf. Proc.* 1986: 605-611. 1986. FR 32(1)

MISCELLANEOUS CULTURE TECHNIQUES AND EQUIPMENT (CONTINUED)

87-000100 Suzuki, K.; T. Taniyama; T. Masutani and W. Kato. A STUDY OF UNDERWATER ELECTRIC DISCHARGE SOUND WAVE NET. *IN: W. Kato, (ed.). Ocean Space Utilization '85. Proc. Int. Symp. Nihon Univ., Tokyo, Japan, June 1985. Vol. 1.* p. 625-632. 1985. FR 32(1)
[Dep. Elec. Eng., Coll. Sci. Technol., Nihon Univ. Kanda Surugadai, Chiyoda-ku, Tokyo, 101 Japan]

87-000101 Terner, C. EVALUATION OF SALMONID SPERM MOTILITY FOR CRYOPRESERVATION. *Prog. Fish-Cult.* 48(3):230-232. 1986. FR 32(1)
[Dep. Biol., Biol. Sci. Cent., Boston Univ., Boston, MA 02215]

PHYSICAL LIMNOLOGY AND OCEANOGRAPHY

87-000102 Tameishi, H. and I. Yamanaka. APPLICATION OF NOAA AVHRR DATA FOR FISHERIES SERVICE. *IN: W. Kato, (ed.). Ocean Space Utilization '85. Proc. Int. Symp. Nihon Univ., Tokyo, Japan, June 1985. Vol. 1.* p. 691-697. 1985. FR 32(1)
[Jpn. Fish. Inf. Serv. Cent., Kojimachi, Chiyoda-ku, Tokyo, 102 Japan]

CHEMICAL LIMNOLOGY AND OCEANOGRAPHY

87-000103 Munn, N. and E. Prepas. SEASONAL DYNAMICS OF PHOSPHORUS PARTITIONING AND EXPORT IN TWO STREAMS IN ALBERTA, CANADA. *Can. J. Fish. Aquatic Sci.* 43(12):2464-2471. 1986. In English with French summ. FR 32(1)
[Inst. Ecol., Univ. Ga., Athens 30602]

BENTHOS

87-000104 Fuller, S. L. H. FRESHWATER MUSSELS (MOLLUSCA: BIVALVIA: UNIONIDAE) OF THE UPPER MISSISSIPPI RIVER: OBSERVATIONS AT SELECTED SITES WITHIN THE 9-FOOD NAVIGATION CHANNEL PROJECT FOR THE ST. PAUL DISTRICT, UNITED STATES ARMY CORPS OF ENGINEERS, 1977-1979. (2 vol.). *Acad. Nat. Sci. Phila. Rep.* No. 79-24F. 616p. 1980. FR 32(1)

87-000105 Wrona, F. J.; P. Calow; I. Ford; D. J. Baird and L. Maltby. ESTIMATING THE ABUNDANCE OF STONE-DWELLING ORGANISMS: A NEW METHOD. *Can. J. Fish. Aquatic Sci.* 43(10):2025-2035. 1986. In English with French summ. FR 32(1)
[Aquat. Ecol. Group, Div. Ecol., Dep. Biol., Univ. Calgary, Calgary, AB T2N 1N4, Canada]

MORPHOLOGY

87-000106 Bart, H. L., Jr. and R. C. Cashner. GEOGRAPHIC VARIATION IN GULF SLOPE POPULATIONS OF THE BLUNTNOSE DARTER, *ETHEOSTOMA CHLOROSOMUM* (HAY). *Tulane Stud. Zool. Bot.* 25(2):151-170. 1986. FR 32(1)
[Dep. Ecol. Ethol. Evol., Univ. Ill., Urbana 61801]

87-000107 Block, B. A. STRUCTURE OF THE BRAIN AND EYE HEATER TISSUE IN MARLINS, SAILFISH, AND SPEARFISHES. *J. Morphol.* 190(2):169-189. 1986. FR 32(1)
[Dep. Zool., Duke Univ., Durham, NC 27706]

MORPHOLOGY (CONTINUED)

87-000108 Bori, C. [OTOLITH MORPHOLOGIC AND BIOMETRIC COMPARED ANALYSIS OF *SOLEA VULGARIS* AND *S. SINEGALENSIS* (TELEOSTEI: SOLEIDAE) OF THE EBRO'S DELTA.] *Invest. Pesq.* 50(2):247-264. 1986. In Spansih with English summ. FR 32(1)
[Inst. Invest. Pesq. Barcelona, Paseo Nac., s/n. 08003 Barcelona, Spain]

87-000109 Buddington, R. K. and S. I. Doroshov. STRUCTURAL AND FUNCTIONAL RELATIONS OF THE WHITE STURGEON ALIMENTARY CANAL *(ACIPENSER TRANSMONTANUS). J. Morphol.* 190(2):201-213. 1986. FR 32(1)
[Dep. Physiol., UCLA Med. Cent., Los Angeles 90024]

87-000110 Chiba, A. and Y. Honma. FINE STRUCTURE OF THE GRANULOCYTES OCCURRING IN THE HYPOTHALAMIC-HYPOPHYSEAL VENTRICLE AND NEUROHYPOPHYSIS OF THE HAGFISH, *PARAMYXINE ATAMI. Jpn. J. Ichthyol.* 33(2):174-179. 1986. In English with Japanese summ. FR 32(1)
[Biol. Lab., Nippon Dental Univ., Niigata Fac., 1-8 Hamaura-cho, Niigata 951, Japan]

87-000111 Cox, C. A. and D. W. Willis. EGG-DIAMETER FREQUENCIES OF GIZZARD SHAD COLLECTED THROUGHOUT THE SPAWNING SEASON FROM MELVERN RESERVOIR, KANSAS. *Kans. Fish. I&D* No. 86-7. 30p. 1986. FR 32(1)
[Kans. Fish Game Comm., P.O. Box 1525, Emporia 66801]

87-000112 Craik, J. C. A. and S. M. Harvey. THE CAROTENOIDS OF EGGS OF WILD AND FARMED ATLANTIC SALMON AND THEIR CHANGES DURING DEVELOPMENT TO THE START OF FEEDING. *J. Fish Biol.* 29(5):549-565. 1986. FR 32(1)
[Scott. Mar. Biol. Assoc., Dunstaffnage Mar. Res. Lab., P.O. Box 3, Oban, Argyll PA34 4AD, Scotland]

87-000113 Emery, S. H. and A. Szczepanski. GILL DIMENSIONS IN PELAGIC ELASMOBRANCH FISHES. *Biol. Bull.* 171(2):441-449. 1986. FR 32(1)
[West Coast Reg. Water Supply Auth., 2535 Landmark Dr., Suite 211, Clearwater, FL 33519]

87-000114 Endo, M. and S. Uchida. STUDY ON VASCULAR SYSTEM IN THE GILLS OF SOME TELEOSTS BY THE RESIN-REPLICA METHOD. *Jpn. J. Ichthyol.* 33(2):168-173. 1986. In English with Japanese summ. FR 32(1)
[Fac. Agric., Univ. Miyazaki, Kumano, Miyazaki 889-21, Japan]

87-000115 Fange, R. and A. Pulsford. THE THYMUS OF THE ANGLER FISH, *LOPHIUS PISCATORIUS* (PISCES: TELEOSTEI) A LIGHT AND ELECTRON MICROSCOPIC STUDY. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 293-311. FR 32(1)
[Dep. Zoophysiol., Univ. Goteborg, Goteborg, Sweden]

87-000116 Fujita, S. and M. Shinohara. [DEVELOPMENT OF EGGS, LARVAE AND JUVENILES OF THE PUFFER, *TAKIFUGU CHRYSOPS*, REARED IN THE LABORATORY.] *Jpn. J. Ichthyol.* 33(2):186-194. 1986. In Japanese with English summ. FR 32(1)
[Lab. Ichthyol., Tokyo Univ. Fish., Konan 4, Minato-ku, Tokyo 108, Japan]

87-000117 Graham, J. B.; R. H. Rosenblatt and D. L. Gibson. MORPHOLOGY AND POSSIBLE SWIMMING MODE OF A YELLOWFIN TUNA, *THUNNUS ALBACARES*, LACKING ONE PECTORAL FIN. *NOAA Fish. Bull.* 84(2):463-469. 1986. FR 32(1)
[Physiol. Res. Lab., Scripps Inst. Oceanogr., La Jolla, CA 92093]

MORPHOLOGY (CONTINUED)

87-000118 Harraez, M. P. and A. G. Zapata. STRUCTURE AND FUNCTION OF THE MELANO-MACROPHAGE CENTRES OF THE GOLDFISH *CARASSIUS AURATUS*. *Vet. Immunol. Immunopathol.* 12(1-4):117-126. 1986. FR 32(1)
[Dep. Morphol. Microsc., Fac. Biol., Univ. Leon, Leon 24071, Spain]

87-000119 Heggberget, T. G. IDENTIFICATION OF SPAWNING REDDS OF ATLANTIC SALMON (*SALMO SALAR* L.) AND BROWN TROUT (*SALMO TRUTTA* L.) BY EGG SIZE. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 60-64. 1985. FR 32(1)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7000 Trondheim, Norway]

87-000120 Hughes, G. M.; J. S. Datta Munshi and J. Ojha. POST-EMBRYONIC DEVELOPMENT OF WATER- AND AIR-BREATHING ORGANS OF *ANABAS TESTUDINEUS* (BLOCH). *J. Fish Biol.* 29(4):443-450. 1986. FR 32(1)
[Res. Unit Comp. Anim. Respir., Bristol Univ., Bristol BS8 1UG, England]

87-000121 Huysseune, A. and W. Verraes. CHONDROID BONE ON THE UPPER PHARYNGEAL JAWS AND NEUROCRANIAL BASE IN THE ADULT FISH *ASTATOTILAPIA ELEGANS*. *Am. J. Anat.* 177(4):527-535. 1986. FR 32(1)
[Lab. Morfol. Syst. Dieren, B-9000 Ghent, Belgium]

87-000122 Johnson, J. R.; J. G. Loesch and A. B. Blair. A MORPHOMETRICAL COMPARISON BETWEEN CULTURED AND WILD JUVENILE AMERICAN SHAD. *Prog. Fish-Cult.* 48(3):168-170. 1986. FR 32(1)
[SAS Inst. Inc., SAS Circle, P.O. Box 8000, Cary, NC 27511]

87-000123 Katsura, K. and K. Hamada. APPEARANCE AND DISAPPEARANCE OF CHLORIDE CELLS THROUGHOUT THE EMBRYONIC AND POSTEMBRYONIC DEVELOPMENT OF THE GOBY, *CHAENOGOBIUS UROTAENIA*. *Bull. Fac. Fish. Hokkaido Univ.* 37(2):95-100. 1986. FR 32(1)
[Lab. Embryol. Genet., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000124 Kim, Y. U.; Y. S. Park and J. G. Myoung. [EGG DEVELOPMENT AND LARVAE OF THE SNAILFISH, *LIPARIS TANAKAI*.] *Bull. Korean Fish. Soc.* 19(4):380-386. 1986. In Korean with English summ. FR 32(1)
[Dep. Mar. Biol., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000125 Kim, Y. U.; Y. S. Park and J. G. Myoung. [EGG DEVELOPMENT AND LARVAE OF SNAILFISH, *LIPARIS INGENS* (GIBERT ET BURKE).] *Bull. Korean Fish. Soc.* 19(4):368-374. 1986. In Korean with English summ. FR 32(1)
[Dep. Mar. Biol., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000126 Kohno, H. LARVAE AND JUVENILES OF PEMPHERIDID FISHES, *PEMPHERIS XANTHOPTERA* AND *P. JAPONICA*. *Jpn. J. Ichthyol.* 33(2):135-144. 1986. In English with Japanese summ. FR 32(1)
[Aquacult. Dep., Southeast Asian Fish. Dev. Cent., P.O. Box 256, Iloilo City, Philippines]

87-000127 Kortmulder, K. SIMILAR BEHAVIOUR AND COLOUR PATTERNS IN 3 NOT CLOSELY RELATED *BARBUS* SPECIES. IS EVOLUTIONARY CONVERGENCE A LIKELY EXPLANATION? *Behaviour* 98(1-4):180-212. 1986. FR 32(1)
[Zool. Lab., Univ. Leiden, Postbox 9516, 2300 RA Leiden, Netherlands]

MORPHOLOGY (CONTINUED)

87-000128 Lavin, P. A. and J. D. McPhail. ADAPTIVE DIVERGENCE OF TROPHIC PHENOTYPE AMONG FRESHWATER POPULATIONS OF THE THREESPINE STICKLEBACK *(GASTEROSTEUS ACULEATUS). Can. J. Fish. Aquatic Sci.* 43(12):2455-2463. 1986. In English with French summ. FR 32(1)
[J.D. McPhail: Inst. Anim. Resour. Ecol., Univ. British Columbia, Vancouver, BC V6T 1W5, Canada]

87-000129 Levels, P. J.; L. J. H. Van Tits and J. M. Denuce. THE EFFECT OF THE PRESENCE OF ADULT FISHES, GONAD HOMOGENATES, AND EMBRYO HOMOGENATES ON THE DISPERSION-REAGGREGATION PHASE DURING EARLY EMBRYONIC DEVELOPMENT OF THE ANNUAL FISH *NOTHOBRANCHIUS KORTHAUSAE. J. Exp. Zool.* 240(2):259-264. 1986. FR 32(1)
[Dep. Zool., Catholic Univ., Toernooiveld, 6525 ED Nijmegen, Netherlands]

87-000130 Mallatt, J. and C. Paulsen. GILL ULTRASTRUCTURE OF THE PACIFIC HAGFISH *EPTATRETUS STOUTI. Am. J. Anat.* 177(2):243-269. 1986. FR 32(1)
[Dep. Zool., Wash. State Univ., Pullman 99164-4220]

87-000131 Matsuura, Y. and N. T. Yoneda. EARLY DEVELOPMENT OF THE LOPHIID ANGLERFISH, *LOPHIUS GASTROPHYSUS. NOAA Fish. Bull.* 84(2):429-436. 1986. FR 32(1)
[Inst. Oceanogr., Univ. Sao Paulo, Butanta, Sao Paulo 05508, Brazil]

87-000132 Midttun, B. and S. Okland. SURFACE MORPHOLOGY OF ENDOCARDIAL ENDOTHELIUM OF THE PIKE *ESOX LUCIUS* L. (TELEOSTEI: ESOCIDAE). *Zool. Anz.* 216(5-6):257-266. 1986. FR 32(1)
[Comp. Cell. Cardiol. Res. Group, Zool. Lab., Univ. Bergen, Norway]

87-000133 Mok, H. and H. Chang. ARTICULATION OF THE PELVIC SPINE IN ACANTHOPTERYGIAN FISHES, WITH NOTES ON ITS PHYLOGENETIC IMPLICATIONS. *Jpn. J. Ichthyol.* 33(2):145-150. 1986. In English with Japanese summ. FR 32(1)
[Inst. Mar. Biol., Natl. Sun Yat-Sen Univ., Kaohsiung, Taiwan, ROC]

87-000134 Nakamura, K. and H. Iida. [RELATIONSHIP BETWEEN ALBINISM AND RIBOFLAVIN AMOUNT IN FLOUNDER *PARALICHTHYS OLIVACEUS.*] *Bull. Jpn. Soc. Sci. Fish.* 52(7):1275-1279. 1986. In Japanese with English summ. FR 32(1)
[Tokai Reg. Fish. Res. Lab., 5-5-1, Kachidoki, Chuo, Tokyo 104, Japan]

87-000135 Nakari, T.; A. Soivio and S. Pesonen. EFFECTS OF ADVANCED PHOTOPERIOD CYCLE ON THE EPIDERMIS AND GONADOSOMATIC INDEX OF 2-YEAR-OLD RAINBOW TROUT, *SALMO GAIRDNERI* R., REARED AT NATURAL TEMPERATURE. *J. Fish Biol.* 29(4):451-457. 1986. FR 32(1)
[Dep. Zool., Div. Physiol., Univ. Helsinki, Arkadiankatu 7, SF-00100 Helsinki, Finland]

87-000136 Neugebauer, D. C. INTERCONNECTIONS BETWEEN THE STEROVILLI OF THE FISH INNER EAR. III. INDICATIONS FOR DEVELOPMENTAL CHANGES. *Cell Tissue Res.* 246(2):447-453. 1986. FR 32(1)
[Zool. Inst., Hufferstr. 1, D-4400 Munster, West Germany]

87-000137 Oka, Y.; M. Satou and K. Ueda. DESCENDING PATHWAYS TO THE SPINAL CORD IN THE HIME SALMON (LANDLOCKED RED SALMON, *ONCORHYNCHUS NERKA*). *J. Comp. Neurol.* 254(1):91-103. 1986. FR 32(1)
[Zool. Inst., Fac. Sci., Univ. Tokyo, Hongo, Tokyo 113, Japan]

MORPHOLOGY (CONTINUED)

87-000138 Otake, T. and K. Mizue. THE FINE STRUCTURE OF THE INTRA-UTERINE EPITHELIUM DURING LATE GESTATION IN THE BLUE SHARK, *PRIONACE GLAUCA*. *Jpn. J. Ichthyol.* 33(2):162-167. 1986. In English with Japanese summ. FR 32(1)
[Ocean Res. Inst., Univ. Tokyo, 1-15-1 Minamidae, Nakano-ku, Tokyo 164, Japan]

87-000139 Potthoff, T.; S. Kelley and J. C. Javech. CARTILAGE AND BONE DEVELOPMENT IN SCOMBROID FISHES. *NOAA Fish. Bull.* 84(3):647-678. 1986. FR 32(1)
[NMFS, 75 Virginia Beach Dr., Miami, FL 33149]

87-000140 Schultze, H. and G. Arratia. REEVALUATION OF THE CAUDAL SKELETON OF ACTINOPTERYGIAN FISHES: I. *LEPISOSTEUS* AND *AMIA*. *J. Morphol.* 190(2):215-241. 1986. FR 32(1)
[Mus. Nat. Hist., Univ. Kans., Lawrence 66045-2454]

87-000141 Schwartz, F. J. HUMPBACKED OYSTER TOADFISH, *OPSANUS TAU* (LINNAEUS), FROM NORTH CAROLINA. *Fla. Sci.* 49(3):168-171. 1986. FR 32(1)
[Inst. Mar. Sci., Univ. N.C., Morehead City 28557]

87-000142 Shariff, M.; A. T. Zainuddin and H. Abdullah. PUGHEADEDNESS IN BIGHEAD CARP, *ARISTICHTHYS NOBILIS* (RICHARDSON). *J. Fish Dis.* 9(5):457-460. 1986. FR 32(1)
[Fac. Fish. Mar. Sci., Univ. Pertanian Malaysia, 43400 UPM Serdang, Malaysia]

87-000143 Shindo, K.; T. Tsuchiya and J. J. Matsumoto. HISTOLOGICAL STUDY ON WHITE AND DARK MUSCLES OF VARIOUS FISHES. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1377-1399. 1986. FR 32(1)
[Dep. Chem., Sophia Univ., 7-1 Kioi, Chiyoda, Tokyo 102, Japan]

87-000144 Swain, D. P. and C. C. Lindsey. MERISTIC VARIATION IN A CONE OF THE CYPRINODONT FISH *RIVULUS MARMORATUS* RELATED TO TEMPERATURE HISTORY OF THE PARENTS AND OF THE EMBRYOS. *Can. J. Zool.* 64(7):1444-1455. 1986. In English with French summ. FR 32(1)
[Inst. Anim. Resour. Ecol., Univ. British Columbia, Vancouver, BC V6T 1W5, Canada]

87-000145 Swain, D. P. and C. C. Lindsey. INFLUENCE OF REPRODUCTIVE HISTORY OF PARENTS ON MERISTIC VARATION IN OFFSPRING IN THE CYPRINODONT FISH *RIVULUS MARMORATUS*. *Can. J. Zool.* 64(7):1456-1459. 1986. In English with French summ. FR 32(1)
[Inst. Anim. Resour. Ecol., Univ. British Columbia, Vancouver, BC V6T 1W5, Canada]

87-000146 Takahashi, H. and Y. Maeno. OCCURRENCE OF AN ACCESSORY CAVITY IN THE TESTIS OF THE TOPMOUTH GUDGEON, *PSEUDORASBORA PARVA*, AND ITS RELATION TO JUVENILE INTERSEXUALITY. *Jpn. J. Ichthyol.* 33(2):180-185. 1986. In English with Japanese summ. FR 32(1)
[Dep. Biol., Fac. Fish., Hokkaido Univ., Minato-cho 3-1-1, Hakodate 041, Japan]

87-000147 Takita, T. and K. Nakamura. EMBRYONIC DEVELOPMENT AND PROLARVA OF THE ATHERINID FISH, *ATHERION ELYMUS*. *Jpn. J. Ichthyol.* 33(2):200-203. 1986. In English with Japanese summ. FR 32(1)
[Fac. Fish., Nagasaki Univ., 1-14 Bunkyo-machi, Nagasaki 852, Japan]

MORPHOLOGY (CONTINUED)

87-000148 Tamoykin, N. Y. and A. G. Trofimov. IDENTIFICATION AND DESCRIPTION OF LOCAL RACES BASED ON THE ARRANGEMENT AND NUMBER OF PHOTOPHORES IN *MYCTOPHUM NITIDULUM*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):131-137. 1986. FR 32(1)
[Inst. Biol. South Seas, Acad. Sci. Ukrainian SSR, Sevastopol, USSR]

87-000149 Taylor, E. B. DIFFERENCES IN MORPHOLOGY BETWEEN WILD AND HATCHERY POPULATIONS OF JUVENILE COHO SALMON. *Prog. Fish-Cult.* 48(3):171-176. 1986. FR 32(1)
[Inst. Anim. Resour. Ecol., Univ. British Columbia, Vancouver, BC]

87-000150 Uehara, M. and T. Ueshima. MORPHOLOGICAL STUDIES OF THE SPINAL CORD IN TETRAODONTIFORMES FISHES. *J. Morphol.* 190(3):325-333. 1986. FR 32(1)
[Dep. Vet. Anat., Fac. Agric., Tottori Univ., Tottori 680, Japan]

87-000151 Vasil'eva, E. D. and V. G. Poznyak. MORPHOLOGICAL CHARACTERISTICS OF THE CAUCASIAN SPINY LOACH, *SABANEJEWIA CAUCASICA* (COBITIDAE). *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):148-156. 1986. FR 32(1)
[Zool. Mus., Moscow State Univ., Moscow, USSR]

PHYSIOLOGY

87-000152 Agius, C. THE MELANO-MACROPHAGE CENTRES OF FISH: A REVIEW. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 85-105. FR 32(1)
[Life Sci. Cent., Sch. Chem. Phys. Sci., Kingston Polytech., Penrhyn Rd., Kingston-Upon-Thames, U.K.]

87-000153 Alabaster, J. S. and P. J. Gough. THE DISSOLVED OXYGEN AND TEMPERATURE REQUIREMENTS OF ATLANTIC SALMON, *SALMO SALAR* L., IN THE THAMES ESTUARY. *J. Fish Biol.* 29(5):613-621. 1986. FR 32(1)
[1 Granby Rd., Stevenage, Herts. SG1 4AK, England]

87-000154 Aldenhoven, J. M. DIFFERENT REPRODUCTIVE STRATEGIES IN A SEX-CHANGING CORAL REEF FISH *CENTROPYGE BICOLOR* (POMACANTHIDAE). *Aust. J. Mar. Freshwater Res.* 37(3):353-360. 1986. FR 32(1)
[Cent. Environ. Urban Stud., Macquarie Univ., North Ryde, N.S.W. 2113, Australia]

87-000155 Alexander, J. B. and N. Al-Shakarchi. FURTHER STUDIES ON THE ALPHA-PRECIPITINS OF THE ATLANTIC SALMON (*SALMO SALAR*). *Vet. Immunol. Immunopathol.* 12(1-4):69-74. 1986. FR 32(1)
[Dep. Biol. Sci., Univ. Salford, Salford M5 4WT, U.K.]

87-000156 Anderson, D. P.; O. W. Dixon and E. F. Lizzio. IMMUNIZATION AND CULTURE OF RAINBOW TROUT ORGAN SECTIONS IN VITRO. *Vet. Immunol. Immunopathol.* 12(1-4):203-211. 1986. FR 32(1)
[U.S. FWS, Box 700, Kearneyville, WV 25430]

PHYSIOLOGY (CONTINUED)

87-000157 Ando, S. and M. Hatano. DETERIORATION OF CHUM SALMON *ONCORHYNCHUS KETA* MUSCLE DURING SPAWNING MIGRATION. XIV. CAROTENOIDS IN THE SERUM LIPOPROTEINS OF CHUM SALMON ASSOCIATED WITH MIGRATION. *Bull. Fac. Fish. Hokkaido Univ.* 37(2):148-156. 1986. FR 32(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000158 Ando, S. and M. Hatano. BIOCHEMICAL CHARACTERISTICS OF CHUM SALMON MUSCLE DURING SPAWNING MIGRATION. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1229-1235. 1986. FR 32(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000159 Ando, S. and M. Hatano. MYOFIBRILLAR PROTEIN DEGRADATION IN SPAWNING-MIGRATING CHUM SALMON, AS EVALUATED BY EXTRACTIVE N-METHYLHISTIDINE LEVEL. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1237-1241. 1986. FR 32(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000160 Ando, S.; F. Yamazaki and M. Hatano. INFLUENCE OF 17α-METHYLTESTOSTERONE ON THE LEVEL AND COMPOSITION OF LIPID IN ADULT CHUM SALMON MUSCLE. *Bull. Fac. Fish. Hokkaido Univ.* 37(3):246-251. 1986. FR 32(1)
[Lab. Food Chem. I, Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000161 Babin, P. J. EFFECT OF PLASMA LIPOPROTEINS IN GONADOTROPIN STIMULATION OF 17β-ESTRADIOL PRODUCTION IN THE OVARIAN FOLLICLE OF RAINBOW TROUT *(SALMO GAIRDNERI). Gen. Comp. Endocrinol.* 64(3):456-467. 1986. FR 32(1)
[Groupe Cytophysiol. Nutr. Poissons, UA 646 CNRS, Univ. Paris-Sud, Bat, 447, 91405 Orsay Cedex, France]

87-000162 Bass, A. H.; N. Segil and D. B. Kelley. ANDROGEN BINDING IN THE BRAIN AND ELECTRIC ORGAN OF A MORMYRID FISH. *J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 159(4):535-544. 1986. FR 32(1)
[Sect. Neurobiol. Behav., Cornell Univ., Ithaca, NY 14853]

87-000163 Bayne, C. J. PRONEPHRIC LEUCOCYTES OF *CYPRINUS CARPIO*: ISOLATION, SEPARATION AND CHARACTERIZATION. *Vet. Immunol. Immunopathol.* 12(1-4):141-151. 1986. FR 32(1)
[Dep. Zool., Oreg. State Univ., Corvallis 97331]

87-000164 Bejerano, J. DETECTION AND CONTROL OF STRESS CONDITIONS IN WARM WATER AQUACULTURE. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 73-92. 1984. FR 32(1)
[Lab. Res. Fish Dis., Nir-David, 19150, Israel]

87-000165 Berry, C. R. and V. Rosen. EFFECTS OF COLD SHOCK ON COLORADO SQUAWFISH LARVAE. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:168. 1985. Abstract only. FR 32(1)
[Utah Coop. Fish Wildl. Res. Unit, Utah State Univ., Logan]

87-000166 Bevan, D. J. and D. L. Kramer. THE EFFECT OF SWIMMING DEPTH ON RESPIRATORY BEHAVIOR OF THE HONEY GOURAMI *COLISA CHUNA* (PISCES: BELONTIIDAE). *Can. J. Zool.* 64(9):1893-1896. 1986. In English with French summ. FR 32(1)
[D.L. Kramer: Dep. Biol., McGill Univ., 1205 Ave. Docteur Penfield, Montreal, PQ H3A 1B1, Canada]

PHYSIOLOGY (CONTINUED)

87-000167 Blaxhall, P. C. THE SEPARATION AND CULTIVATION OF FISH LYMPHOCYTES. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 245-259. FR 32(1)
[Dep. Life Sci., Trent Polytech., Nottingham NG1 4BU, U.K.]

87-000168 Bly, J. E. THE ONTOGENY OF THE IMMUNE SYSTEM IN THE VIVIPAROUS TELOST *ZOARCES VIVIPARUS* L. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 327-341. FR 32(1)
[Sch. Anim. Biol., Univ. Coll. North Wales, Bangor, Gwynedd, North Wales LL57 2UW, U.K.]

87-000169 Bodammer, J. E. ULTRASTRUCTURAL OBSERVATIONS ON PERITONEAL EXUDATE CELLS FROM THE STRIPED BASS. *Vet. Immunol. Immunopathol.* 12(1-4): 127-140. 1986. FR 32(1)
[NMFS, Northeast Fish. Cent., Oxford, MD 21654]

87-000170 Boehlert, G. W.; M. Kusakari; M. Shimizu and J. Yamada. ENERGETICS DURING EMBRYONIC DEVELOPMENT IN KUROSOI, *SEBASTES SCHLEGELI* HILGENDORF. *J. Exp. Mar. Biol. Ecol.* 101(3):239-256. 1986. FR 32(1)
[NMFS, 2570 Dole St., Honolulu, HI 96822-2396]

87-000171 Bourne, P. K. CHANGES IN HAEMATOLOGICAL PARAMETERS ASSOCIATED WITH CAPTURE AND CAPTIVITY OF THE MARINE TELEOST, *PLEURONECTES PLATESSA L. Comp. Biochem. Physiol. A Comp. Physiol.* 85(3):435-443. 1986. FR 32(1)
[Sch. Pure Appl. Sci., Univ. South Pacific, P. O. Box 1168, Suva, Fiji]

87-000172 Breton, B.; F. Le Gac and E. Sambroni. GONADOTROPIN HORMONE (GtH) RECEPTORS IN THE OVARY OF THE BROWN TROUT *SALMO TRUTTA* L. *IN VITRO* STUDIES. *Gen. Comp. Endocrinol.* 64(2):163-171. 1986. FR 32(1)
[Lab. Physiol. Poissons, INRA, Campus de Beaulieu, F 35042 Rennes Cedex, France]

87-000173 Burton, M. and D. R. Idler. THE CELLULAR LOCATION OF 1α-HYDROXYCORTICOSTERONE BINDING PROTEIN IN SKATE. *Gen. Comp. Endocrinol.* 64(2):260-266. 1986. FR 32(1)
[Mar. Sci. Res. Lab., Memorial Univ. Newfoundland, St. John's, NF A1C 5S7, Canada]

87-000174 Cagan, R. H. BIOCHEMICAL STUDIES OF TASTE SENSATION--XII. SPECIFICITY OF BINDING OF TASTE LIGANDS TO A SEDIMENTABLE FRACTION FROM CATFISH TASTE TISSUE. *Comp. Biochem. Physiol. Comp. Physiol.* 85(2):355-358. 1986. FR 32(1)
[Colgate-Palmolive Co., 909 River Rd., Piscataway, NJ 08854]

87-000175 Castleberry, D. T. and J. J. Cech, Jr. PHYSIOLOGICAL RESPONSES OF AN ENDANGERED FISH AND ITS INTRODUCED "COMPETITOR" TO ENVIRONMENTAL STRESSORS. *Prog. IV Int. Congr. Ecol.* p. 112. 1986. Abstract only. FR 32(1)
[Univ. Calif., Davis 95616]

PHYSIOLOGY (CONTINUED)

87-000176 Chilmonczyk, S. EVOLUTION OF THE THYMUS IN RAINBOW TROUT. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 285-292. FR 32(1)
[INRA, Lab. Ichtyopathol., Groupe de Lab. Pathol. Anim., Route de Thiverval, 78850 Thiverval-Grignon, France]

87-000177 Choi, J.; C. Rhim; Y. Choi; C. Kim and S. Oh. [COMPOSITIONS OF PROTEIN AND AMINO ACID IN CRUCIAN CARP AND SNAKEHEAD.] *Bull. Korean Fish. Soc.* 19(4):333-338. 1986. In Korean with English summ. FR 32(1)
[Dep. Nutr. Food Sci., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000178 Conlon, J. M. and L. Thim. PRIMARY STRUCTURE OF INSULIN AND A TRUNCATED C-PEPTIDE FROM AN ELASMOBRANCHIAN FISH, *TORPEDO MARMORATA. Gen. Comp. Endocrinol.* 64(2):199-205. 1986. FR 32(1)
[Clin. Res. Group Gastrointestinal Endocrinol., Max-Planck-Gesell-sch., Univ. Gottingen, West Germany]

87-000179 Cornell, N. W.; J. J. Stegeman; M. J. Kerich and B. R. Woodin. METABOLITE AND ENZYME CONTENTS OF FREEZE-CLAMPED LIVER OF THE MARINE FISH *STENOTOMUS CHRYSOPS. Comp. Biochem. Physiol. B Comp. Biochem.* 85(3):669-674. 1986. FR 32(1)
[Natl. Inst. Alcohol Abuse Alcoholism, Lab. Metabolism, 12501 Washington Ave., Rockville, MD 20852]

87-000180 Crawford,, R. H.; R. R. Cusack and T. R. Parlee. LIPID CONTENT AND ENERGY EXPENDITURE IN THE SPAWNING MIGRATION OF ALEWIFE *(ALOSA PSEUDOHARENGUS)* AND BLUEBACK HERRING *(ALOSA AESTIVALIS). Can. J. Zool.* 64(9):1902-1907. 1986. In English with French summ. FR 32(1)
[Nova Scotia Dep. Fish., P.O. Box 2223, Halifax, NS B3J 3C4, Canada]

87-000181 Crim, L. W.; B. D. Glebe and A. P. Scott. THE INFLUENCE OF LHRH ANALOG ON OOCYTE DEVELOPMENT AND SPAWNING IN FEMALE ATLANTIC SALMON, *SALMO SALAR. Aquaculture* 56(2):139-149. 1986. FR 32(1)
[Mar. Sci. Res. Lab., Memorial Univ. Newfoundland, St. Johns, NF A1C 5S7, Canada]

87-000182 Dabrowski, K. R. and S. J. Kaushik. UTILIZATION OF ENDOGENOUS RESERVES DURING EMBRYONIC DEVELOPMENT AND LARVAL LIFE OF STURGEN, *ACIPENSER BAERI* BRANDT (CHONDROSTEI). *Zool. Anz.* 216(5-6):367-380. 1986. FR 32(1)
[Lab. Nutr. Poissons, I.N.R.A., Saint Pee-sur-Nivelle, Ascain, France]

87-000183 De la Higuera, M. and P. Cardenas. HORMONAL EFFECTS ON GLUCONEOGENESIS FROM (U-^{14}C)GLUTAMATE IN RAINBOW TROUT *(SALMO GAIRDNERI). Comp. Biochem. Physiol. B Comp. Biochem.* 85(3):517-521. 1986. FR 32(1)
[Dep. Fisiol. Anim., Fac. Cienc., Univ. Granada, 18071 Granada, Spain]

87-000184 De la Noue, J. and G. Choubert. DIGESTIBILITY IN RAINBOW TROUT: COMPARISON OF THE DIRECT AND INDIRECT METHODS OF MEASUREMENT. *Prog. Fish-Cult.* 48(3):190-195. 1986. FR 32(1)
[Cent. Rech. Nutr., Dep. Biol., Univ. Laval, PQ G1K 7P4, Canada]

PHYSIOLOGY (CONTINUED)

87-000185 De Ruiter, A. J. H.; S. E. Wendelaar Bonga; H. Slijkhuis and B. Baggerman. THE EFFECT OF PROLACTIN ON FANNING BEHAVIOR IN THE MALE THREE-SPINED STICKLEBACK, *GASTEROSTEUS ACULEATUS* L. *Gen. Comp. Endocrinol.* 64(2):273-283. 1986. FR 32(1)
[Dep. Zool., State Univ. Groningen, P.O. Box 14, 9750 AA Haren, Netherlands]

87-000186 Deegan, L. A. CHANGES IN BODY COMPOSITION AND MORPHOLOGY OF YOUNG-OF-THE-YEAR GULF MENHADEN, *BREVOORTIA PATRONUS* GOODE, IN FOURLEAGUE BAY, LOUISIANA. *J. Fish Biol.* 29(4):403-415. 1986. FR 32(1)
[Dep. Mar. Sci., Coastal Fish. Inst., La. State Univ., Baton Rouge 70803-7503]

87-000187 Dubourg, P.; P. Prunet; F. Gonnet and O. Kah. IMMUNOCYTOCHEMICAL AND ULTRASTRUCTURAL CHARACTERIZATION OF PROLACTIN CELLS IN THE GOLDFISH *(CARASSIUS AURATUS). C. R. Acad. Sci. Ser. III Sci. Vie* 303(9):361-366. 1986. FR 32(1)
[Lab. Physiol. Interactions Cell., ave. Facultes, 33405, Talance Cedex, France]

87-000188 Dunant, Y. and D. Muller. QUANTAL RELEASE OF ACETYLCHOLINE EVOKED BY FOCAL DEPOLARIZATION AT THE *TORPEDO* NERVE-ELECTROPLAQUE JUNCTION. *J. Physiol. (Lond.)* 379:461-478. 1986. FR 32(1)
[Dep. Pharmacol., Cent. Med. Univ., 1211 Geneva 4, Switzerland]

87-000189 Eckstein, B.; J. Gerst and S. Cohen. BIOSYNTHESIS OF STEROIDS BY THE OVARIAN COMPONENT OF THE GONAD OF *SPARUS AURATA. Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 139-149. 1984. FR 32(1)
[Inst. Life Sci., Hebrew Univ. Jerusalem, Jerusalem, Israel]

87-000190 Ekstrom, P. and H. W. Korf. PUTATIVE CHOLINERGIC ELEMENTS IN THE PHOTOSENSORY PINEAL ORGAN AND RETINA OF A TELEOST, *PHOXINUS PHOXINUS* L. (CYPRINIDAE). *Cell Tissue Res.* 246(2):321-329. 1986. FR 32(1)
[Dep. Zool., Univ. Lund, Helgonavagan 3, S-226 62 Lund, Sweden]

87-000191 Ekstrom, P. and H. W. Korf. SUBSTANCE P-LIKE-IMMUNOREACTIVE NEURONS IN THE PHOTOSENSORY PINEAL ORGAN OF THE RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON (TELEOSTEI). *Cell Tissue Res.* 246(2):359-364. 1986. FR 32(1)
[Dep. Zool., Univ. Lund, Helgonavagan 3, S-226 62 Lund, Sweden]

87-000192 Ekstrom, P.; M. Reschke; H. Steinbusch and T. Van Veen. DISTRIBUTION OF NORADRENALINE IN THE BRAIN OF THE TELEOST *GASTEROSTEUS ACULEATUS* L.: AN IMMUNOHISTOCHEMICAL ANALYSIS. *J. Comp. Neurol.* 254(3):297-313. 1986. FR 32(1)
[Dep. Zool., Univ. Lund, S-223 62 Lund, Sweden]

87-000193 Elbal, M. T. and B. Agulleiro. AN IMMUNOCYTOCHEMICAL AND ULTRASTRUCTURAL STUDY OF ENDOCRINE CELLS IN THE GUT OF A TELEOST FISH, *SPARUS AURATUS* L. *Gen. Comp. Endocrinol.* 64(3):339-354. 1986. FR 32(1)
[Dep. Cytol. Histol., Univ. Murcia, Murcia, Spain]

PHYSIOLOGY (CONTINUED)

87-000194 Establier, R.; M. Gutierrez; M. C. Sarasquete; J. Blasco and E. Bravo. CHANGES IN PHOSPHATASE ACTIVITY IN VARIOUS ORGANS OF THE TOADFISH, *HALOBATRACHUS DIDACTYLUS* (SCHNEIDER, 1801), DURING SEXUAL MATURATION. *Invest. Pesq.* 50(2):271-278. 1986. In English with Spanish summ. FR 32(1)
[Inst. Cienc. Mar. Andalucia, Poligono del Rio San Pedio, s/n. Puerto Real, Cadiz, Spain]

87-000195 Fange, R. LYMPHOID ORGANS IN STURGEONS (ACIPENSERIDAE). *Vet. Immunol. Immunopathol.* 12(1-4):153-161. 1986. FR 32(1)
[Dep. Zoophysiol., P.B. 25059, S-40031, Goteborg, Sweden]

87-000196 Fernandez, J.; O. Gonzalez; M. Martin and M. Ruiz Amil. ERYTHROID 5-AMINOLEVULINATE SYNTHETASE FROM TROUT (*SALMO GAIRDNERI* R.). *Comp. Biochem. Physiol. B Comp. Biochem.* 85(3):675-678. 1986. FR 32(1)
[Dep. Bioquim., Fac. Vet., Univ. Complutense, 28040 Madrid, Spain]

87-000197 Fiedler, W.; E. Borroni and P. Ferretti. AN IMMUNOHISTOCHEMICAL STUDY OF SYNAPTOGENESIS IN THE ELECTRIC ORGAN OF *TORPEDO MARMORATA* BY USE OF ANTISERA TO VESICULAR AND PRESYNAPTIC PLASMA MEMBRANE COMPONENTS. *Cell Tissue Res.* 246(2):439-446. 1986. FR 32(1)
[Sek. Abt. Neurochem., Max-Planck-Inst. Biophys. Chem., Postfach 2841, D-3400 Gottingen, West Germany]

87-000198 Fletcher, G. L.; M. H. Kao and R. M. Fourney. ANTIFREEZE PEPTIDES CONFER FREEZING RESISTANCE TO FISH. *Can. J. Zool.* 64(9):1897-1901. 1986. In English with French summ. FR 32(1)
[Mar. Sci. Res. Lab., Memorial Univ. Newfoundland, St. John's, NF A1C 5S7, Canada]

87-000199 Fletcher, T. C. MODULATION OF NONSPECIFIC HOST DEFENSES IN FISH. *Vet. Immunol. Immunopathol.* 12(1-4):59-67. 1986. FR 32(1)
[N.E.R.C. Inst. Mar. Biochem., St. Fittick's Rd., Aberdeen AB1 3RA, U.K.]

87-000200 Garratt, P. A. OPHICHTHID EELS IN THE COELOM OF SEVERAL NATAL OFFSHORE REEF FISH. *S. Afr. J. Zool.* 21(3):274-275. 1986. In English with Afrikaans summ. FR 32(1)
[Oceanogr. Res. Inst., P.O. Box 10712, Marine Parade, Durban, 4056, South Africa]

87-000201 Gentile, F.; O. Lira and D. Marcano-de Cotte. RELATIONSHIP BETWEEN BRAIN GONADOTROPHIN-RELEASING HORMONE (GnRH) AND SEASONAL REPRODUCTIVE CYCLE OF "CARIBE COLORADO," *PYGOCENTRUS NOTATUS*. *Gen. Comp. Endocrinol.* 64(2):239-245. 1986. FR 32(1)
[D. Marcano-de Cotte: Dep. Physiol., J. M. Vargas Med. Sch., Univ. Cent. Venezuela Apt. 47633, Caracas 1041-A, Venezuela]

87-000202 Glaser, H. [PARTHENOGENESIS IN *CARASSIUS*, SEXUAL REPRODUCTION, AND THEORY OF AGING.] *Biol. Zentralbl.* 105(5):475-489. 1986. In German with English summ. FR 32(1)
[Johannes-R.-Becher-Str. 36, DDR, 1500 Potsdam, East Germany]

87-000203 Gonzalez De Canales, M. L.; M. C. Sarasquete; J. Blasco and M. Gutierrez. [PHYSICO-CHEMICAL CHARACTERISTICS OF ALKALINE PHOSPHATASE IN THE NEUTROPHIL GRANULOCYTE OF *HALOBATRACHUS DIDACTYLUS* (TELEOSTEI: HALOBATRACHIDAE).] *Invest Pesq.* 50(2):227-236. 1986. In Spanish with English summ. FR 32(1)
[Dep. Biol., Fac. Ciens., Apd. 40, Puerto Real, Cadiz, Spain]

PHYSIOLOGY (CONTINUED)

87-000204 Grimm, A. S. SUPPRESSION BY CORTISOL OF THE MITOGEN-INDUCED PROLIFERATION OF PERIPHERAL BLOOD LEUCOCYTES FROM PLAICE, *PLEURONECTES PLATESSA* L. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 263-271. FR 32(1)
[Sch. Anim. Biol., Univ. Coll. North Wales, Bangor, Gwynedd LL57 2UW, Wales]

87-000205 Groth, V.; L. Renwrantz and W. Villwock. DETERMINATION OF DIFFERENT LECTIN - RECEPTORS ON THE SURFACE OF CARP *(CYPRINUS CARPIO)* ERYTHROCYTES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 169-176. 1984. FR 32(1)
[Zool. Inst., Univ. Hamburg, Martin Luther King Platz 3, D-2000 Hamburg 13, West Germany]

87-000206 Guderley, H.; P. Blier and L. Richard. METABOLIC CHANGES DURING THE REPRODUCTIVE MIGRATION OF TWO SYMPATRIC COREGONINES, *COREGONUS ARTEDII* AND *COREGONUS CLUPEAFORMIS*. *Can. J. Fish. Aquatic Sci.* 43(10):1859-1865. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Univ. Laval, PQ G1K 7P4, Canada]

87-000207 Halpern-Sebold, L. R.; M. P. Schreibman and H. Margolis-Nunno. DIFFERENCES BETWEEN EARLY- AND LATE-MATURING GENOTYPES OF THE PLATYFISH (*XIPHOPHORUS MACULATUS*) IN THE MORPHOMETRY OF THEIR IMMUNOREACTIVE LUTEINIZING HORMONE RELEASING HORMONE-CONTAINING CELLS: A DEVELOPMENTAL STUDY. *J. Exp. Zool.* 240(2):245-257. 1986. FR 32(1)
[Dep. Biol., Brooklyn Coll., City Univ. N.Y., Brooklyn, NY 11210]

87-000208 Hara, A.; A. Takemura; T. Matsubara and K. Takano. [IMMUNOCHEMICAL IDENTIFICATION OF FEMALE-SPECIFIC SERUM PROTEINS IN A VIVIPAROUS FISH, THE WHITE-EDGED ROCKFISH *(SEBASTES TACZANOWSKII)*, DURING VITELLOGENESIS AND PREGNANCY, AND AFTER ESTROGEN TREATMENT.] *Bull. Fac. Fish. Hokkaido Univ.* 37(2):101-110. 1986. In Japanese with English summ. FR 32(1)
[Fish. Nutr. Div., Natl. Res. Inst. Aquacult., Hokkaido Univ., Hakodate, Japan]

87-000209 Hardisty, M. W.; I. C. Potter and R. W. Hilliard. GONADOGENESIS AND SEX DIFFERENTIATION IN THE SOUTHERN HEMISPHERE LAMPREY, *GEOTRIA AUSTRALIS* GRAY. *J. Zool. (Lond.)* 209(4):477-499. 1986. FR 32(1)
[Sch. Biol. Sci., Univ. Bath, Claverton Down, Bath, Avon BA2 7AY, U.K.]

87-000210 Hart, S.; A. B. Wrathmell and J. E. Harris. ONTOGENY OF GUT-ASSOCIATED LYMPHOID TISSUE (GALT) IN THE DOGFISH *SCHLIORHINUS CANICULA* L. *Vet. Immunol. Immunopathol.* 12(1-4):107-116. 1986. FR 32(1)
[Dep. Biol. Sci., Plymouth Polytech., Drake Circus, Plymouth PL4 899, U.K.]

87-000211 Herman, R. L. and H. L. Kincaid. GONADAL DYSGENESIS IN RAINBOW TROUT *SALMO GAIRDNERI*. *Dis. Aquat. Organ.* 1(3):227-228. 1986. FR 32(1)
[U.S. FWS, Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430]

87-000212 Hon, W. K. and T. B. Ng. HORMONES WITH ADRENOCORTICOTROPIC AND OPIATE-LIKE ACTIVITIES FROM THE CARP *(CYPRINUS CARPIO)* PITUITARY. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(2):443-448. 1986. FR 32(1)
[T.B. Ng: Dep. Biochem. Fac. Med., Chinese Univ. Hong Kong, Shatin, New Territories, Hong Kong]

PHYSIOLOGY (CONTINUED)

87-000213 Honzatko, R. B. and W. A. Hendrickson. MOLECULAR MODELS FOR THE PUTATIVE DIMER OF SEA LAMPREY HEMOGLOBIN. *Proc. Natl. Acad. Sci. U.S.A.* 83(22):8487-8491. 1986. FR 32(1)
[Dep. Biochem., Iowa State Univ., Ames 50011]

87-000214 Horwood, J. W.; R. C. A. Bannister and G. J. Howlett. COMPARATIVE FECUNDITY OF NORTH SEA PLAICE (*PLEURONECTES PLATESSA* L.). *Proc. R. Soc. Lond. B Biol. Sci.* 228(1253):401-431. 1986. FR 32(1)
[MAFF, Dir. Fish. Res., Fish. Lab., Lowestoft, Suffolk NR33 0HT, U.K.]

87-000215 Hughes, G. M. and I. Martinez. COMPARISON OF THE OSMOTIC FRAGILITY OF RED BLOOD CELLS IN SAMPLES FROM ANAESTHETISED AND UNANESTHETISED TROUT AND EEL AND THE EFFECT OF VARYING OXYGEN LEVELS. *Exp. Biol.* 46(1):59-65. 1986. FR 32(1)
[Res. Unit Comp. Anim. Respir., Bristol Univ., Woodland Rd., Bristol BS8 1UG, England]

87-000216 Hunt, T. C. and A. F. Rowley. PRELIMINARY STUDIES ON THE CHEMOTACTIC POTENTIAL OF DOGFISH (*SCYLIORHINUS CANICULA*) LEUCOCYTES USING THE BIPOLAR SHAPE FORMATION ASSAY. *Vet. Immunol. Immunopathol.* 12(1-4): 75-82. 1986. FR 32(1)
[Sch. Biol. Sci., Univ. Coll. Swansea, Singleton Park, Swansea SA2 8PP, U.K.]

87-000217 Huppop, K. OXYGEN CONSUMPTION OF *ASTYANAX FASCIATUS* (CHARACIDAE, PISCES): A COMPARISON OF EPIGEAN AND HYPOGEAN POPULATIONS. *Environ. Biol. Fishes* 17(4):299-308. 1986. FR 32(1)
[Zool. Inst., Univ. Hamburg, Martin-Luther-King-Platz 3, 2000 Hamburg 13, West Germany]

87-000218 Ingram, G. A. and J. B. Alexander. THE EFFECT OF DOSE, ROUTE, NUMBER OF INJECTIONS AND THE USE OF ADJUVANT ON THE CLEARANCE OF AND IMMUNE RESPONSE TO, HAEMOCYANIN FOLLOWING INJECTION INTO BROWN TROUT (*SALMO TRUTTA*). *Vet. Immunol. Immunopathol.* 12(1-4):175-180. 1986. FR 32(1)
[Dep. Biol. Sci., Univ. Salford, Salford M5 4WT, Lancashire, U.K.]

87-000219 Irwin, M. J. and S. L. Kaattari. SALMONID B LYMPHOCYTES DEMONSTRATE ORGAN DEPENDENT FUNCTIONAL HETEROGENEITY. *Vet. Immunol. Immunopathol.* 12(1-4):39-45. 1986. FR 32(1)
[S. L. Kaattari: Oreg. State Univ., Corvallis 97331-3804]

87-000220 Jurd, R. D. SPECIALISATION IN THE TELEOST AND ANURAN IMMUNE RESPONSE: A COMPARATIVE CRITIQUE. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 9-28. FR 32(1)
[Dep. Biol., Univ. Essex, Wivenhoe Park, Colchester, Essex, CO4 3SQ, England]

87-000221 Kaattari, S. L.; M. J. Irwin; M. A. Yui; R. A. Tripp and J. S. Parkins. PRIMARY IN VITRO STIMULATION OF ANTIBODY PRODUCTION BY RAINBOW TROUT LYMPHOCYTES. *Vet. Immunol. Immunopathol.* 12(1-4):29-38. 1986. FR 32(1)
[Microbiol. Dep., Oreg. State Univ., Corvallis 97331-3804]

87-000222 Kanda, T. and Y. Itazawa. WHEN DOES THE GROUP EFFECT ON OXYGEN CONSUMPTION APPEAR IN FISH? *J. Fac. Agric. Kyushu Univ.* 30(4):197-207. 1986. FR 32(1)

PHYSIOLOGY (CONTINUED)

87-000222 CONTINUED
[Fish. Lab., Fac. Agric., Miyazaki Univ., Akamizu, Nobeoka, Miyazaki 889-05, Japan]

87-000223 Kasukawa, H.; N. Oshima and R. Fujii. A COMPARATIVE SURVEY OF THE TYPE OF SYMPATHETIC NEURO-MELANOPHORE TRANSMISSION IN CATFISHES. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(1):115-120. 1986. FR 32(1)
[Dep. Biol., Fac. Sci., Toho Univ., Miyama, Funabashi, Chiba 274, Japan]

87-000224 Katti, S. R. and A. G. Sathyanesan. MONOAMINE OXIDASE ACTIVITY IN THE GONADS OF *CLARIAS BATRACHUS* (L) IN RELATION TO REPRODUCTIVE CYCLE. *J. Interdiscipl. Cycle Res.* 17(3):207-211. 1986. FR 32(1)
[Dep. Zool., Banaras Hindu Univ., Varanasi 221 005, India]

87-000225 Kawada, M. and T. Shibata. [THE CONVERSION OF CARP MUSCLE PHOSPHORYLASE B TO A.] *Bull. Jpn. Soc. Sci. Fish.* 52(8):1401-1407. 1986. In Japanese with English summ. FR 32(1)
[Fac. Fish., Hokkaido Univ., Minatocho, Hakodate 041, Japan]

87-000226 Kawada, M. and T. Shibata. [ACTIVATION AND PHOSPHORYLATION OF CARP MUSCLE PHOSPHORYLASE KINASE.] *Bull. Jpn. Soc. Sci. Fish.* 52(8):1409-1416. 1986. In Japanese with English summ. FR 32(1)
[Fac. Fish., Hokkaido Univ., Minatocho, Hakodate 041, Japan]

87-000227 Kellogg, R. L. and S. M. Jinks. SHORT-TERM THERMAL TOLERANCE OF 10 SPECIES OF COD ICHTHYOPLANKTON COMMON TO THE HUDSON RIVER. *N.Y. Fish Game J.* 32(1):41-52. 1985. FR 32(1)
[Ecological Analysts, Inc., Goshen Turnpike, Middletown, NY 10940]

87-000228 Kilgour, D. M. and R. W. McCauley. RECONCILING THE TWO METHODS OF MEASURING UPPER LETHAL TEMPERATURES IN FISHES. *Environ. Biol. Fishes* 17(4):281-290. 1986. FR 32(1)
[Dep. Math., Wilfrid Laurier Univ., Waterloo, ON N2L 3C5, Canada]

87-000229 Kobayashi, M.; K. Aida and I. Hanyu. ANNNUAL CHANGES IN PLASMA LEVELS OF GONADOTROPIN AND STEROID HORMONES IN GOLDFISH. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1153-1158. 1986. FR 32(1)
[Lab. Fish Physiol., Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo, Tokyo 113, Japan]

87-000230 Kormanik, G. A. and D. H. Evans. THE ACID-BASE STATUS OF PRENATAL PUPS OF THE DOGFISH, *SQUALUS ACANTHIAS*, IN THE UTERINE ENVIRONMENT. *J. Exp. Biol.* 125:173-179. 1986. FR 32(1)
[Dep. Biol., Univ. N. C., Ashville 28814]

87-000231 Kurzinger, V. H.; F. J. Schwarz and M. Kirchgessner. MEASUREMENTS OF DIGESTIBILITY OF FOOD IN CARP (*CYPRINUS CARPIO* L.). *J. Anim. Physiol. Anim. Nutr.* 56(4):208-217. 1986. In German with English summ. FR 32(1)
[Inst. Ernahrungsphysiol. Tech., Univ. Munchen, 8050 Freising-Weihenstephan, West Germany]

87-000232 Kuznetsov, V. A. [THE CHANGE OF FECUNDITY, EGG QUALITY AND MORPHOPHYSIOLOGICAL INDICATORS OF PIKE PERCH FEMALES IN KUIBYSHEV RESERVOIR UNDER DIFFERENT FEEDING CONDITIONS.] *Biol. Nauki (Mosc.)* No. 272. p. 32-37. 1986. In Russian with English summ. FR 32(1)

PHYSIOLOGY (CONTINUED)

87-000233 LaRivierer, L. and M. Anctil. A COMPARATIVE ANALYSIS OF NORADRENALINE AND ADRENALINE UPTAKE IN PHOTOPHORES OF THE MIDSHIPMAN FISH, *PORICHTHYS NOTATUS*: KINETICS AND PHARMACOLOGY. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(2):335-339. 1986. FR 32(1)
[Dep. Sci. Biol., Univ. Montreal, Montreal, PQ H3C 3J7, Canada]

87-000234 Lee, K.; I. Jeong; J. Suh; W. Jung; C. Kim and B. Lee. UTILIZATION OF POLYUNSATURATED LIPIDS IN RED MUSCLED FISHES. *Bull. Korean Fish. Soc.* 19(5):423-435. 1986. FR 32(1)
[Dep. Food Sci. Technol., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000235 Lee, L. E. J.; V. Pochmursky and N. C. Bols. EFFECT OF CORTICOSTEROIDS ON THE MORPHOLOGY AND PROLIFERATION OF TWO SALMONID CELL LINES. *Gen. Comp. Endocrinol.* 64(3):373-380. 1986. FR 32(1)
[Dep. Biol., Univ. Waterloo, Waterloo, ON N2L 3G1, Canada]

87-000236 Lobb, C. J. STRUCTURAL DIVERSITY OF CHANNEL CATFISH IMMUNOGLOBULINS. *Vet. Immunol. Immunopathol.* 12(1-4):7-12. 1986. FR 32(1)
[Dep. Microbiol., Univ. Miss. Med. Cent., Jackson 39211]

87-000237 Lou, S. W.; K. Aida; I. Hanyu; K. Sakai; M. Nomura; M. Tanaka and S. Tazaki. ENDOCRINE PROFILES IN THE MALES OF A TWICE-ANNUALLY SPAWNING STRAIN OF RAINBOW TROUT, *SALMO GAIRDNERI*. *Gen. Comp. Endocrinol.* 64(2):212-219. 1986. FR 32(1)
[K. Aida: Dep. Fish., Fac. Agric. Univ. Tokyo, Bunkyo-ku, Tokyo, Japan]

87-000238 MacArthur, J. I. and T. C. Fletcher. PHAGOCYTOSIS IN FISH. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 29-46. FR 32(1)
[NERC Inst. Mar. Biochem., St. Fittick's Rd., Aberdeen AB1 3RA, Scotland]

87-000239 Mainwaring, G. and A. F. Rowly. STUDIES ON GRANULOCYTE HETEROGENEITY IN ELASMOBRANCHS. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 57-69. FR 32(1)
[Dep. Zool., Univ. Coll. Swansea, Singleton Park, Swansea SA2 8PP, U.K.]

87-000240 Marshall, W. S. SPERM DUCT EPITHELIUM OF BROOK TROUT: Na+ TRANSPORT AND SEMINAL PLASMA COMPOSITION. *Can. J. Zool.* 64(9):1827-1830. 1986. In English with French summ. FR 32(1)
[Dep. Biol., St. Francis Xavier Univ., Antigonish, NS B2G 1C0, Canada]

87-000241 Mayberry, L. F.; J. R. Bristol; D. Sulimanovic; N. Fijan and Z. Petrinec. *RHABDOSPORA THELOHANI*: EPIDEMIOLOGY OF AND MIGRATION INTO *CYPRINUS CARPIO* BULBUS ARTERIOSUS. *Fish Pathol.* 21(3):145-150. 1986. FR 32(1)
[Biol. Sci. Dep., Univ. Tex., El Paso 79968]

87-000242 Moerland, T. S. and B. D. Sidell. CONTRACTILE RESPONSES TO TEMPERATURE IN THE LOCOMOTORY MUSCULATURE OF STRIPED BASS *MORONE SAXATILIS*. *J. Exp. Zool.* 240(1):25-33. 1986. FR 32(1)
[Dep. Zool., Univ. Me., Orono 04469]

PHYSIOLOGY (CONTINUED)

87-000243 Mohr, A.; W. Wolf; M. Bohl and R. Hoffmann. QUANTIFICATION OF METHAEMOGLOBIN REDUCTION IN RED BLOOD CELLS OF THE RAINBOW TROUT *SALMO GAIRDNERI* R. *J. Fish Biol.* 29(4):483-487. 1986. FR 32(1)
[Zool. Inst., Univ. Stuttgart-Hohenheim, 7 Stuttgart 70, West Germany]

87-000244 Moyes, C. D.; T. W. Moon and J. S. Ballantyne. OSMOTIC EFFECTS ON AMINO ACID OXIDATION IN SKATE LIVER MITOCHONDRIA. *J. Exp. Biol.* 125:181-195. 1986. FR 32(1)
[Dep. Biol., Univ. Ottawa, 30 Somerset E, Ottawa, ON K1N 6N5, Canada]

87-000245 Muller, D. POTENTIATION BY 4-AMINOPYRIDINE OF QUANTAL ACETYLCHOLINE RELEASE AT THE *TORPEDO* NERVE-ELECTROPLAQUE JUNCTION. *J. Physiol. (Lond.)* 379:479-493. 1986. FR 32(1)
[Dep. Pharmacol., Cent. Med. Univ., 1211 Geneva 4, Switzerland]

87-000246 Nakanishi, T. SEASONAL CHANGES IN THE HUMORAL IMMUNE RESPONSE AND THE LYMPHOID TISSUES OF THE MARINE TELEOST, *SEBASTISCUS MARMORATUS*. *Vet. Immunol. Immunopathol.* 12(1-4):213-221. 1986. FR 32(1)
[Natl. Res. Inst. Aquacult., Tamaki, Mie 519-04, Japan]

87-000247 Nash, K. A.; T. C. Fletcher and A. W. Thomson. MIGRATION OF FISH LEUCOCYTES IN VITRO: THE EFFECT OF FACTORS WHICH MAY BE INVOLVED IN MEDIATING INFLAMATION. *Vet. Immunol. Immunopathol.* 12(1-4):83-92. 1986. FR 32(1)
[N.E.R.C., Inst. Mar. Biochem., Aberdeen AB1 3RA, U.K.]

87-000248 Negishi, S. EFFECT OF CALICIUM ANTAGONISTS ON LIGHT RESPONSE OF CULTURED MELANOPHORES OF *ORYZIAS LATIPES*. *J. Exp. Zool.* 240(2):183-189. 1986. FR 32(1)
[Dep. Biol., Keio Univ., Yokohama 223, Japan]

87-000249 Neill, W. H.; T. A. Springer and H. I. Wu. MODELING THERMOREGULATORY MOVEMENTS OF FISH IN TWO-SPACE AS A BIASED RANDOM WALK. *Prog. IV Int. Congr. Ecol.* p. 252. 1986. Abstract only. FR 32(1)
[Tex. A&M Univ., College Station, 77843]

87-000250 Nichols, D. J. and P. Huntly. CORTISOL KINETICS AND PLASMA PROTEIN BINDING IN ACID STRESSED TROUT. *J. Endocrinol.* 111(Suppl.):No. 113. 1986. FR 32(1)
[Dep. Biol., Paisley Coll. Technol., High Street, Paisley PA1 2BE, U.K.]

87-000251 O'Neill, J. G. AN IN VITRO STUDY OF POLYMORPHONUCLEAR PHAGOCYTOSIS AND THE EFFECT OF TEMPERATURE. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 47-55. FR 32(1)
[Leicester Sch. Pharm., Leicester Polytech., Leicester, England]

87-000252 Oshima, N.; H. Kasukawa; R. Fujii; B. C. Wilkes; V. J. Hruby and M. E. Hadley. ACTION OF MELANIN-CONCENTRATING HORMONE (MCH) ON TELEOST CHROMATOPHORES. *Gen. Comp. Endocrinol.* 64(3):381-388. 1986. FR 32(1)
[Dep. Biol., Fac. Sci., Toho Univ., Miyama, Funabashi, Chiba 274, Japan]

87-000253 Oshima, N.; N. Yamaji and R. Fujii. ADENOSINE RECEPTORS MEDIATE PIGMENT DISPERSION IN LEUCOPHORES OF THE MEDAKA, *ORYZIAS LATIPES*. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(1):245-248. 1986. FR 32(1)
[Dep. Biol., Fac. Sci., Toho Univ., Miyama, Funabashi, Chiba 274, Japan]

PHYSIOLOGY (CONTINUED)

87-000254 Oshima, N.; T. Furuuchi and R. Fujii. CYCLIC NUCLEOTIDE ACTION IS MEDIATED THROUGH ADENOSINE RECEPTORS IN DAMSELFISH MOTILE IRIDOPHORES. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(1):89-93. 1986. FR 32(1)
[Dep. Biol., Fac. Sci., Toho Univ., Miyama, Funabashi, Chiba 274, Japan]

87-000255 Panara, F. and P. Puccetti. HEMOGLOBIN HETERGENEITY IN THE PIKE, *ESOX LUCIUS*, AND ISOLATION OF HOMOGENEOUS COMPONENT. *Comp. Biochem. Physiol. B Comp. Biochem.* 85(3):589-592. 1986. FR 32(1)
[Ist. Biol. Cell., Fac. Sci., Univ. Perugia, Via Elce di Sotto, I-06100 Perugia, Italy]

87-000256 Parish, N.; A. Wrathmell and J. E. Harris. PHAGOCYTIC CELLS IN THE DOGFISH (SCYLIORHINUS CANICULA L.). *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 71-83. FR 32(1)
[Dep. Biol. Sci., Plymouth Polytech., Plymouth, Devon, England]

87-000257 Parma de Croux, M. J. and E. Lorenzatti. BIOENERGETIC STUDIES IN FISH OF THE PARANA RIVER. II. EXCRETION AND METABOLIZABLE ENERGY IN *P.MELODUS MACULATUS* (LACEPEDE) (PISCES, PIMELODIDAE). *J. Aquaricult. Aquatic Sci.* 4(4):75-78. 1986. FR 32(1)
[Natl. Inst. Limnol., Jose Macia 1933, 3016 Santo Tome, Santa Fe, Argentina]

87-000258 Patzner, R. A. THE REPRODUCITON OF *BLENNIUS PAVO* (TELEOSTEI, BLENNIIDAE). I. OVARIAL CYCLE, ENVIRONMENTAL FACTORS AND FEEDING. *Helgol. Meeresunters.* 36(1):105-114. 1983. FR 32(1)
[Zool. Inst., Univ. Salzburg, Akad. 26, A-5020 Salzburg, Austria]

87-000259 Peute, J.; M. A. Zandbergen; H. J. T. Goos; R. De Leeuw; R. Pinkas; W. J. A. R. Viveen and P. G. W. J. Van Oordt. PITUITARY GONADOTROPIN CONTENTS AND ULTRASTRUCTURE OF THE GONADOTROPS IN THE AFRICAN CATFISH *CLARIAS GARIEPINUS* DURING THE ANNUAL CYCLE IN A NATURAL HABITAT. *Can. J. Zool.* 64(7):1718-1726. 1986. In English with French summ. FR 32(1)
[Zool. Lab., Res. Group Comp. Endocrinol., State Univ. Utrecht, Pandualaan 8, 3584 CH Utrecht, Netherlands]

87-000260 Pickering, A. D.; T. G. Pottinger and J. P. Sumpter. INDEPENDENCE OF THE PITUITARY-INTERRENAL AXIS AND MELANOTROPH ACTIVITY IN THE BROWN TROUT, *SALMO TRUTTA* L., UNDER CONDITIONS OF ENVIRONMENTAL STRESS. *Gen. Comp. Endocrinol.* 64(2):206-211. 1986. FR 32(1)
[Freshwater Biol. Assoc., The Ferry House, Far Sawrey, North Ambleside, Cumbria LA22 OLP, U.K.]

87-000261 Powell, J. F. F. and B. A. McKeown. THE INFLUENCE OF SIZE ON ION REGULATION AND SEA-WATER SURVIVAL OF ACID-EXPOSED COHO SALMON SMOLTS *(ONCORHYNCHUS KISUTCH). Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(2):369-373. 1986. FR 32(1)
[Tidal Rush Mar. Lab., Box 144, Madeira Park, BC VOH 2HO, Canada]

87-000262 Prat, F.; M. Carrillo and A. De Mones. [VALIDATION OF RADIOIMMUNOASSAY FOR THE MEASUREMENT OF PLASMA TESTOSTERONE, 11-KETOTESTOSTERONE AND 17ß-ESTRADIOL IN THE SEA BASS (*DICENTARCHUS*

PHYSIOLOGY (CONTINUED)

87-000262 CONTINUED *LABRAX* L.).] *Invest. Pesq.* 50(2):279-295 1986. In Spanish with English summ. FR 32(1)
[Inst. Acuicult. Torre de la Sal., Ribera de Cavanes, Castellon, Spain]

87-000263 Quantz, G. and A. Tandler. THE EFFECT OF WEIGHT AND ENVIRONMENTAL TEMPERATURE ON THE OXYGEN CONSUMPTION OF GILTHEAD SEABREAM (*SPARUS AURATA* L.) LARVAE. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 229-239. 1984. FR 32(1)
[Inst. Meereskunde, Univ. Kiel, Dusternbrocker Weg 20, D-2300 Kiel, West Germany]

87-000264 Rehbein, H.; E. Danulat and M. Leineman. ACTIVITIES OF CHITINASE AND PROTEASE AND CONCENTRATION OF FLUORIDE IN THE DIGESTIVE TRACT OF ANTARCTIC FISHES FEEDING ON KRILL (*EUPHAUSIA SUPERBA* DANA). *Comp. Biochem. Physiol. A Comp. Physiol.* 85(3):545-551. 1986. FR 32(1)
[Bundesforsch. Fisch., Inst. Biochem. Technol., Palmaille 9, 2000 Hamburg 50, West Germany]

87-000265 Rosenshein, I. L.; S. F. Schluter and J. J. Marchalonis. CONSERVATION AMONG THE IMMUNOGLOBULINS OF CARCHARHINE SHARKS AND PHYLOGENETIC CONSERVATION. *Vet. Immunol. Immunopathol.* 12(1-4):13-20. 1986. FR 32(1)
[Dep. Biochem., Med. Univ. S.C., 171 Ashley Ave., Charleston 29425]

87-000266 Rowley, A. F. and M. Page. LAMPREY MELANO-MACROPHAGES: STRUCTURE AND FUNCTION. *IN: M. J. Manning and M. F Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 273-284. FR 32(1)
[Dep. Zool., Univ. Coll. Swansea, Singleton Park, Swansea SA2 8PP, England]

87-000267 Rugłys, M. P. IMMUNOSUPPRESSION AND IMMUNOLOGICAL TOLERANCE IN CARP. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 357-368. FR 32(1)
[93 Westwood Green, Cookham, Berkshire SL6 9DE, England]

87-000268 Sakata, T. and Y. Koreeda. A NUMERICAL TAXONOMIC STUDY OF THE DOMINANT BACTERIA ISOLATED FROM TILAPIA INTESTINES. *Bull. Jpn. Soc. Sci. Fish.* 52(9):1625-1634. 1986. FR 32(1)
[Fac. Fish., Kagoshima Univ., Shimoarata 4-50-20, Kagoshima 890, Japan]

87-000269 Santos, A. J. G.; K. Furukawa; M. Kobayashi; K. Bando; K. Aida and I. Hanyu. PLASMA GONODOTROPIN AND STERIOD HORMONE PROFILES DURING OVULATION IN THE CARP *CYPRINUS CARPIO*. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1159-1666. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan]

87-000270 Santos, A. J. G.; K. Furukawa; K. Bando; K. Aida and I. Hanyu. PHOTPERIODIC DETERMINATION OF PREOVULATORY GONADOTROPIN SURGE ONSET TIME IN THE CARP *CYPRINUS CARPIO*. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1167-1172. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo-ku, Tokyo 113, Japan]

87-000271 Sarano, F. [OVARIAN CYCLE OF THE HAKE *MERLUCCIUS MERLUCCIUS* AS A PARTIAL SPAWNER FISH.] *Rev. Trav. Inst. Peches Marit.* 48(1-2):65-76. 1984. In French with English summ. FR 32(1)
[Fond. Cousteau, 25 Ave. de Wagram, 75017 Paris, France]

PHYSIOLOGY (CONTINUED)

87-000272 Satchell, G. H. CYCLIC SUBAMBIENT BLOOD PRESSURE IN THE DORSAL INTESTINAL VEIN OF THE SPINY DOGFISH (*SQUALUS ACANTHIAS*). *N. Z. J. Zool.* 13(1):101-105. 1986. FR 32(1)
[Dep. Physiol., Otago Med. Sch., Dunedin, New Zealand]

87-000273 Sato, K.; R. Yoshinaka; M. Sato and Y. Shimizu. COLLAGEN CONTENT IN THE MUSCLE OF FISHES IN ASSOCIATION WITH THEIR SWIMMING MOVEMENT AND MEAT TEXTURE. *Bull. Jpn. Soc. Sci. Fish.* 52(9):1595-1600. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Kyoto Univ., Sakyo, Kyoto 606, Japan]

87-000274 Schulz, R. *IN VITRO* METABOLISM OF STEROID HORMONES IN THE LIVER AND IN BLOOD CELLS OF MALE RAINBOW TROUT (*SALMO GAIRDNERI* RICHARDSON). *Gen. Comp. Endocrinol.* 64(2):312-319. 1986. FR 32(1)
[Ruhr-Univ. Bochum, Fak. Biol., Universitatsstr. 150, D-4630 Bochum 1, West Germany]

87-000275 Secombes, C. J. IMMUNOLOGICAL ACTIVATION OF RAINBOW TROUT MACROPHAGES INDUCED IN VITRO BY SPERM AUTOANTIBODIES AND FACTORS DERIVED FROM TESTIS SENSITISED LEUCOCYTES. *Vet. Immunol. Immunopathol.* 12(1-4): 193-201. 1986. FR 32(1)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen AB9 2TN, Scotland]

87-000276 Secombes, C. J.; A. E. Lewis; L. M. Laird; E. A. Needham and I. G. Priede. EXPERIMENTALLY INDUCED IMMUNE REACTIONS TO GONAD IN RAINBOW TROUT (*SALMO GAIRDNERI*). *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 343-355. FR 32(1)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen AB9 2TN, U.K.]

87-000277 Sheridan, M. A. EFFECTS OF THYROXIN, CORTISOL, GROWTH HORMONE, AND PROLACTIN ON LIPID METABOLISM OF COHO SALMON, *ONCORHYNCHUS KISUTCH*, DURING SMOLTIFICATION. *Gen. Comp. Endocrinol.* 64(2):220-238. 1986. FR 32(1)
[Dep. Zool., N. Dak. State Univ., Fargo 58105]

87-000278 Shuttleworth, T. J. and J. L. Thompson. PERFUSION-SECRETION RELATIONSHIPS IN THE ISOLATED ELASMOBRANCH RECTAL GLAND. *J. Exp. Biol.* 125:373-384. 1986. FR 32(1)
[Dep. Biol. Sci., Univ. Exeter, Exeter EX4 4PS, Canada]

87-000279 Sigel, M. M.; B. A. Hamby and E. M. Huggins, Jr. PHYLOGENETIC STUDIES ON LYMPHOKINES. FISH LYMPHOCYTES RESPOND TO HUMAN IL-1 AND EPITHELIAL CELLS PRODUCE AN IL-1 LIKE FACTOR. *Vet. Immunol. Immunopathol.* 12(1-4): 47-58. 1986. FR 32(1)
[Dep. Microbiol. Immunol., USC Sch. Med., Columbia, SC 29208]

87-000280 Sovenyi, J. and I. Petri. QUANTITATIVE INVESTIGATION OF NATURAL HEMAGGLUTININS TO HUMAN ABO BLOOD GROUPS IN THE SERA OF THREE FRESHWATER FISHES. *Symp. Biol. Hung.* 23:243-250. 1984. FR 32(1)
[Vet. Res. Inst., Hungarian Acad. Sci., Budapest, Hungary]

87-000281 Stickney, R. R. TILAPIA TOLERANCE OF SALINE WATERS: A REVIEW. *Prog. Fish-Cult.* 48(3):161-167. 1986. FR 32(1)
[Sch. Fish., Univ. Wash., Seattle 98195]

PHYSIOLOGY (CONTINUED)

87-000282 Sweeting, R. M. and B. A. McKeown. SOMATOSTATIN REDUCES PLASMA GROWTH HORMONE LEVELS DURING SEAWATER ADAPTATION IN COHO SALMON, *ONCORHYNCHUS KISUTCH*. *Can. J. Zool.* 64(9):2062-2063. 1986. In English with French summ. FR 32(1)
[Dep. BioSci., Simon Fraser Univ., Burnaby, BC V5A 1S6, Canada]

87-000283 Takahashi, Y.; T. Itami and K. Konegawa. [ENZYMATIC PROPERTIES OF BACTERIOLYTIC SUBSTANCES IN SKIN MUCUS AND INTESTINE OF CARP.] *Fish Pathol.* 21(3):187-191. 1986. In Japanese with English summ. FR 32(1)
[Dep. Aquacult. Biol., Shimonoseki Univ. Fish., Shimonoseki 759-65, Japan]

87-000284 Talbot, C.; T. Preston and B. W. East. BODY COMPOSITION OF ATLANTIC SALMON (*SALMO SALAR* L.) STUDIED BY NEUTRON ACTIVATION ANALYSIS. *Comp. Biochem. Physiol. A Comp. Physiol.* 85(3):445-450. 1986. FR 32(1)
[Freshwater Fish. Lab., Pitlochry, Perthshire PH16 5LB, U.K.]

87-000285 Tatner, M. F. THE ONTOGENY OF HUMORAL IMMUNITY IN RAINBOW TROUT, *SALMO GAIRDNERI*. *Vet. Immunol. Immunopathol.* 12(1-4):93-105. 1986. FR 32(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

87-000286 Taylor, P. W.; W. A. Rogers and R. A. Dunham. COMPARISONS OF HEMOGLOBINS AND HEMATOCRITS OF BLUE, BROWN BULLHEAD, CHANNEL, WHITE, CROSSBRED, AND HYBRID CATFISHES. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:374-382. 1984. FR 32(1)
[Dep. Fish. Allied Aquacult., Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

87-000287 Temkin, R. J. and D. B. McMillan. GUT-ASSOCIATED LYMPHOID TISSUE (GALT) OF THE GOLDFISH, *CARASSIUS AURATUS*. *J. Morphol.* 190(1):9-26. 1986. FR 32(1)
[Dep. Zool., Univ. Western Ontario, London, ON N6A 5B7, Canada]

87-000288 Thompson, J. S. and A. A. I. Kostiala. IMMUNOLOGICAL CLASSIFICATION OF A PIKE LYMPHOMA. *Vet. Immunol. Immunopathol.* 12(1-4): 421-430. 1986. FR 32(1)
[Dep. Limnol., Univ. Helsinki, Helsinki, Finland]

87-000289 Tsin, A. T. C.; S. T. Morales, Jr. and J. M. Flores. DISTRIBUTION OF RETINOIDS AND 3,4-DIDEHYDRORETINOIDS IN THE GOLDFISH. *Can. J. Zool.* 64(9):2066-2067. 1986. In English with French summ. FR 32(1)
[Div. Life Sci., Univ. Tex., San Antonio 78285]

87-000290 Tucker, B. W. and J. E. Halver. VITAMIN C METABOLISM IN RAINBOW TROUT. *Comp. Pathol. Bull.* 18(4):1, 6. 1986. FR 32(1)
[Coll. Ocean Fish. Sci., Univ. Wash. WH-10, Seattle, 98195]

87-000291 Tun, N. and A. H. Houston. TEMPERATURE, OXYGEN, PHOTOPERIOD, AND THE HEMOGLOBIN SYSTEM OF THE RAINBOW TROUT, *SALMO GAIRDNERI*. *Can. J. Zool.* 64(9):1883-1888. 1986. In English with French summ. FR 32(1)
[A.H. Houston: Dep. Biol. Sci., Brock Univ., St. Catharines, ON L2S 3A1, Canada]

87-000292 Van de Winkel, J. G. J.; T. H. M. S. M. Van Kuppevelt; H. M. J. Janssen and R. A. C. Lock. GLYCOSAMINOGLYCANS IN THE SKIN MUCUS OF RAINBOW TROUT (*SALMO GAIRDNERI*). *Comp. Biochem. Physiol. B Comp. Biochem.*

PHYSIOLOGY (CONTINUED)

87-000292 CONTINUED 85(2):473-475. 1986. FR 32(1)
[Dep. Zool., Univ. Nijmegen, Toernooiveld, 6525 ED Nijmegen, Netherlands]

87-000293 Van Der Kraak, G.; E. M. Donaldson and J. P. Chang. DOPAMINE INVOLVEMENT IN THE REGULATION OF GONADOTROPIN SECRETION IN COHO SALMON. *Can. J. Zool.* 64(6):1245-1248. 1986. In English with French summ. FR 32(1)
[Dep. Zool., Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-000294 Van Muiswinkel, W. B.; A. J. Tigchelaar; E. G. M. Harmsen and P. M. Rijnders. THE USE OF ARTIFICIAL GYNOGENESIS IN STUDIES ON THE IMMUNE SYSTEM OF CARP (*CYPRINUS CARPIO* L.). *Vet. Immunol. Immunopathol.* 12(1-4):1-6. 1986. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P.O. Box 338, 6700 AH Wageningen, Netherlands]

87-000295 Wales, N. A. M. PROSTGLANDINS AND THROMBOXANE INDUCED VASODEPRESSION IN THE BLOOD PRESSURE OF *MYXINE GLUTINOSA*, *ANGUILLA ANGUILLA*, *GADUS MORHUA* AND *ESOX LUCIUS*. *J. Endocrinol.* 111(Suppl.):No. 112. 1986. Abstract only. FR 32(1)
[Dep. Zoophysiol., Univ. Goteborg, Sweden]

87-000296 Weeks, B. A. and J. E. Warinner. FUNCTIONAL EVALUATION OF MACROPHAGES IN FISH FROM A POLLUTED ESTUARY. *Vet. Immunol. Immunopathol.* 12(1-4):313-320. 1986. FR 32(1)
[Va. Inst. Mar. Sci., Coll. William and Mary, Gloucester Point, VA 23062]

87-000297 Wendelaar Bonga, S. E.; R. K. Pang and P. K. T. Pang. HYPOCALCEMIC EFFECTS OF BOVINE PARATHYROID HORMONE (1-34) AND STANNIUS CORPUSCLE HOMOGENATES IN TELEOST FISH ADAPTED TO LOW-CALCIUM WATER. *J. Exp. Zool.* 240(3):363-367. 1986. FR 32(1)
[Dep. Zool., Univ. Nijmegen, Nijmegen, Netherlands]

87-000298 Yone, Y.; M. A. Hossain; M. Furuichi and F. Kato. EFFECT OF FERMENTED SCRAP MEAL ON PROXIMATE COMPOSITIONS OF MUSCLE AND LIVER, HEMATOLOGICAL CHARACTERISTICS, AND CHEMICAL COMPONENTS IN BLOOD PLASMA OF RED SEA BREAM. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1461-1464. 1986. FR 32(1)
[Fish. Res. Lab., Kyushu Univ., Tsuyazaki, Fukuoka 811-33, Japan]

87-000299 Yora, T. and Y. Sakagishi. COMPARATIVE BIOCHEMICAL STUDY OF ALKALINE PHOSPHATASE ISOZYMES IN FISH, AMPHIBIANS, REPTILES, BIRDS AND MAMMALS. *Comp. Biochem. Physiol. B Comp. Biochem.* 85(3):649-658. 1986. FR 32(1)
[Dep. Biochem., Saitama Med. Sch., Morayama-machi, Iruma-gun, Saitama 350-04, Japan]

87-000300 Young, G.; S. Adachi and Y. Nagahama. ROLE OF OVARIAN THECAL AND GRANULOSA LAYERS IN GONADOTROPIN-INDUCED SYNTHESIS OF A SALMONID MATURATION-INDUCING SUBSTANCE (17α,20β-DIHYDROXY-4-PREGNEN-3-ONE). *Dev. Biol.* 118(1):1-8. 1986. FR 32(1)
[Y. Nagahama: Lab. Reprod. Biol., Dep. Dev. Biol., Natl. Inst. Basic Biol., Okazaki 444, Japan]

PHYSIOLOGY (CONTINUED)

87-000301 Youngson, A. F.; H. A. McLay and T. C. Olsen. THE RESPONSIVENESS OF THE THYROID SYSTEM OF ATLANTIC SALMON (*SALMO SALAR* L.) SMOLTS TO INCREASED WATER VELOCITY. *Aquaculture* 56(3-4):243-255. 1986. FR 32(1)
[Mar. Lab., Victoria Rd., Torry, Aberdeen, Scotland]

87-000302 Zeeman, M. MODULATION OF THE IMMUNE RESPONSE IN FISH. *Vet. Immunol. Immunopathol.* 12(1-4):235-241. 1986. FR 32(1)
[U.S. Food Drug Admin., Cent. Vet. Med. (HFV-152), 5600 Fishers Lane, Rockville, MD 20857]

87-000303 Zohar, Y.; B. Breton and A. Fostier. SHORT-TERM PROFILES OF PLASMA GONADOTROPIN AND ESTRADIOL-17β LEVELS IN THE FEMALE RAINBOW TROUT, FROM EARLY OVARIAN RECRUDESCENCE AND THROUGHOUT VITELLOGENESIS. *Gen. Comp. Endocrinol.* 64(2):172-188. 1986. FR 32(1)
[Natl. Cent. Maricult., Isr. Oceanogr. Limnol. Res. Inst., P.O. Box 1212, 88112 Elat, Israel]

87-000304 Zohar, Y.; B. Breton and A. Fostier. SHORT-TERM PROFILES OF PLASMA GONADOTROPIN AND 17α-HYDROXY, 20β-DIHYDROPROGESTERONE LEVELS IN THE FEMALE RAINBOW TROUT AT THE PERIOVULATORY PERIOD. *Gen. Comp. Endocrinol.* 64(2):189-198. 1986. FR 32(1)
[Natl. Cent. Maricult., Isr. Oceanogr. Limnol. Res. Inst., P.O. Box 1212, 88112 Elat, Israel]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION

87-000305 Allendorf, F. W.; J. E. Seeb; K. L. Knudsen; G. H. Thorgaard and R. F. Leary. GENE-CENTROMERE MAPPING OF 25 LOCI IN RAINBOW TROUT. *J. Hered.* 77:307-312. 1986. FR 32(1)
[Dep. Zool., Univ. Mont., Missoula 59812]

87-000306 Avtalion, R. R.; R. Shahrabani; R. Agassi and L. Gringrass. SEX SPECIFIC MARKERS IN TILAPIAS. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 119-128. 1984. FR 32(1)
[Dep. Life Sci., Bar Ilan Univ., Ramat-Gan, 52 100 Israel]

87-000307 Bailey, J. K. and E. J. Loudenslager. GENETIC AND ENVIRONMENTAL COMPONENTS OF VARIATION FOR GROWTH OF JUVENILE ATLANTIC SALMON *(SALMO SALAR). Aquaculture* 57(1-4):125-132. 1986. FR 32(1)
[Salmon Genet. Res. Prog., Atl. Salmon Fed., St. Andrews, NB E0G 2X0, Canada]

87-000308 Baumgartner, J. V. THE GENETICS OF DIFFERENTIATION IN A STREAM POPULATION OF THE THREESPINE STICKLEBACK, *GASTEROSTEUS ACULEATUS. Heredity* 57(2):199-208. 1986. FR 32(1)
[Dep. Ecol. Evol., State Univ. N.Y., Stony Brook 11794]

87-000309 Brett, B. L. H. POST-GLACIAL COLONIZATION AND HYBRIDIZATION OF GENESEE RIVER JOHNNY DARTERS *(ETHEOSTOMA NIGRUM). Prog. IV Int. Congr. Ecol.* p. 100. 1986. Abstract only. FR 32(1)
[Univ. Rochester, Rochester, NY 14627]

87-000310 Crawford, T.; M. Freeze; R. Fourt; S. Henderson; G. O'Byran and D. Philipp. SUSPECTED NATURAL HYBRIDIZATION OF STRIPED BASS AND WHITE BASS IN TWO ARKANSAS RESERVOIRS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl.*

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

87-000310 CONTINUED *Agencies* 38:455-469. 1984. FR 32(1)
[Ark. Game Fish Comm., No. 2 Nat. Resour. Dr., Little Rock 72205]

87-000311 Dawley, R. M.; J. H. Graham and R. J. Schultz. TRIPLOID PROGENY OF PUMPKINSEED X GREEN SUNFISH HYBRIDS. *J. Hered.* 76:251-257. 1985. FR 32(1)
[Biol. Sci. Group, Univ. Conn., Storrs 06268]

87-000312 Doyle, R. W. and A. J. Talbot. EFFECTIVE POPULATION SIZE AND SELECTION IN VARIABLE AQUACULTURE STOCKS. *Aquaculture* 57(1-4):27-35. 1986. FR 32(1)
[Dep. Biol., Dalhousie Univ., Halifax, NS B3H 4J1, Canada]

87-000313 Dunham, R. A.; R. O. Smitherman; R. K. Goodman and P. Kemp. COMPARISON OF STRAINS, CROSSBREEDS AND HYBRIDS OF CHANNEL CATFISH FOR VULNERABILITY TO ANGLING. *Aquaculture* 57(1-4):193-201. 1986. FR 32(1)
[Dep. Fish. Allied Aquacult., Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

87-000314 Eccles, D. H. IS SPECIATION OF DEMERSAL FISHES IN LAKE TANGANYIKA RESTRAINED BY PHYSICAL LIMNOLOGICAL CONDITIONS? *Biol. J. Linn. Soc.* 29(2):115-122. 1986. FR 32(1)
[MAFF, Dir. Fish. Res., Lowestoft NR33 0HT, U.K.]

87-000315 Frankel, J. S. INHERITANCE OF TRUNK STRIPING IN THE SUMATRAN TIGER BARB, *BARBUS TETRAZONA*. *J. Hered.* 76:478-479. 1985. FR 32(1)
[Dep. Zool., Howard Univ., Washington, DC 20059]

87-000316 Fredeen, H. MONITORING GENETIC CHANGE. *Aquaculture* 57(1-4):1-26. 1986. FR 32(1)
[Vanag Consult. Serv., Box 1810, Lacombe, AB T0C 1S0, Canada]

87-000317 Gjerde, B. GROWTH AND REPRODUCTION IN FISH AND SHELLFISH. *Aquaculture* 57(1-4):37-55. 1986. FR 32(1)
[Agric. Res. Counc. Norway, Inst. Aquacult. Res., N-1432 As-NLH, Norway]

87-000318 Gonzalez-Villasenor, L. I.; A. M. Burkhoff; V. Corces and D. A. Powers. CHARACTERIZATION OF CLONED MITOCHONDRIAL DNA FROM THE TELEOST *FUNDULUS HETEROCLITUS* AND ITS USEFULNESS AS AN INTERSPECIES HYBRIDIZATION PROBE. *Can. J. Fish. Aquatic Sci.* 43(10):1866-1872. 1986. In English with French summ. FR 32(1)
[McCollum-Pratt Inst., Johns Hopkins Univ., Baltimore MD 21218]

87-000319 Henry, T. and A. Ferguson. KINETIC STUDIES ON THE LACTATE DEHYDROGENASE ISOZYMES OF THE BROWN TROUT, *SALMO TRUTTA* L. *Comp. Biochem. Physiol. B Comp. Biochem.* 85(2):491-496. 1986. FR 32(1)
[Dep. Zool., Queen's Univ., Belfast BT7 1NN, Northern Ireland]

87-000320 Hop, H. STOCK IDENTIFICATION OF ARCTIC GRAYLING *THYMALLUS ARCTICUS* (PALLAS) IN INTERIOR ALASKA. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:206-210. 1985. FR 32(1)
[Alaska Coop. Fish. Res. Unit, Univ. Alaska, Fairbanks 99701]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

87-000321 Johnson, K. R. and J. E. Wright. FEMALE BROWN TROUT X ATLANTIC SALMON HYBRIDS PRODUCE GYNOGENS AND TRIPLOIDS WHEN BACKCROSSED TO MALE ATLANTIC SALMON. *Aquaculture* 57(1-4):345-358. 1986. FR 32(1)
[Dep. Zool., Wash. State Univ., Pullman 99164-4220]

87-000322 Johnson, M. S.; S. Creagh and M. Moran. GENETIC SUBDIVISION OF STOCKS OF SNAPPER, *CHRYSOPHRYS UNICOLOR*, IN SHARK BAY, WESTERN AUSTRALIA. *Aust. J. Mar. Freshwater Res.* 37(3):337-345. 1986. FR 32(1)
[Dep. Zool., Univ. West. Aust., Nedlands, WA 6009, Australia]

87-000323 Johnson, O. W.; W. W. Dickhoff and F. M. Utter. COMPARATIVE GROWTH AND DEVELOPMENT OF DIPLOID AND TRIPLOID COHO SALMON, *ONCORHYNCHUS KISUTCH*. *Aquaculture* 57(1-4):329-336. 1986. FR 32(1)
[NMFS, 2725 Montlake Blvd. East, Seattle, WA 98112]

87-000324 Kijima, A.; N. Taniguchi and A. Ochiai. GENETIC DIVERGENCE AND MORPHOLOGICAL DIFFERENCE BETWEEN THE SPOTTED AND COMMON MACKEREL. *Jpn. J. Ichthyol.* 33(2):151-161. 1986. In English with Japanese summ. FR 32(1)
[Dep. Cult. Fish., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

87-000325 Koljonen, M. THE ENZYME GENE VARIATION OF TEN FINNISH RAINBOW TROUT STRAINS AND THE RELATION BETWEEN GROWTH RATE AND MEAN HETEROZYGOSITY. *Aquaculture* 57(1-4):253-260. 1986. FR 32(1)
[Finn. Game Fish. Res. Inst., Fish. Div., P.O. Box 193, SF-00131 Helsinki 13, Finland]

87-000326 Lannan, J. E. and A. R. D. Kapuscinski. APPLICATION OF A GENETIC FITNESS MODEL TO EXTENSIVE AQUACULTURE. *Aquaculture* 57(1-4):81-87. 1986. FR 32(1)
[Dep. Fish. Wildl., Oreg. State Univ., Mar. Sci. Cent., Newport 97365]

87-000327 Myers, J. M. TETRAPLOID INDUCTION IN *OREOCHROMIS* SPP. *Aquaculture* 57(1-4):281-287. 1986. FR 32(1)
[Sch. Fish., WH-10, Univ. Wash., Seattle 98195]

87-000328 Ojima, Y.; Y. Nakanishi and A. Takai. CHROMOSOMAL STUDIES OF CULTURED CELLS FROM THE HYBRIDS BETWEEN *HUSO HUSO* AND *ACIPENSER RUTHENUS*. *Proc. Jpn. Acad. Sci. B Phys. Biol. Sci.* 62(3): 87-90. 1986. FR 32(1)
[Dep. Biol., Fac. Sci., Kwansei Gakuin Univ., Nishinomiya, 662, Japan]

87-000329 Okazaki, T. GENETIC VARIATION AND POPULATION STRUCTURE IN MASU SALMON *ONCORHYNCHUS MASOU* OF JAPAN. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1365-1376. 1986. FR 32(1)
[Far Seas Fish. Res. Lab., Fish. Agency Jpn., Orido, Shimizu 424, Japan]

87-000330 Omel'chenko, V. T.; N. E. Polyakova; V. N. Ivankov and P. E. Luk'yanov. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):42-49. 1986. FR 32(1)
[Inst. Mar. Biol., Far East Res. Cent., Acad. Sci. USSR, Vladivostok, USSR]

87-000331 Parsons, J. E. and G. H. Thorgaard. PRODUCTION OF ANDROGENETIC DIPLOID RAINBOW TROUT. *J. Hered.* 76:177-181. 1985. FR 32(1)
[Clear Springs Trout Co., P.O. Box 712, Buhl, ID 83316]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

87-000332 Payusova, A. N. and T. N. Tselikova. POLYMORPHISM OF TETRAZOLIUM OXIDASE AND VARIABILITY OF ALLELE FREQUENCY IN WHITE AMUR, *CTENOPHARYNGODON IDELLA*, FROM DIFFERENT REGIONS OF THE USSR. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):34-41. 1986. FR 32(1)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

87-000333 Pitrolo, E. THE ELECTROPHORETIC AND MORPHOMETRIC COMPARISON OF LAKE AND STREAM POPULATIONS OF THE TROUTPERCH. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 311. 1986. Abstract only. FR 32(1)
[U.S. Army Corps Eng., 210 Tucker Blvd., North, St. Louis, MO 63101]

87-000334 Ratty, F. J.; Y. C. Song and R. M. Laurs. CHROMOSOMAL ANALYSIS OF ALBACORE, *THUNNUS ALALUNGA*, AND YELLOWFIN, *THUNNUS ALBACARES*, AND SKIPJACK, *KATSUWONUS PALAMIS*, TUNA. *NOAA Fish. Bull.* 84(2):469-476. 1986. FR 32(1)
[San Diego State Univ., San Diego, CA 92182]

87-000335 Renaud, C. B.; L. I. Speers; S. U. Qadri and D. E. McAllister. BIOCHEMICAL EVIDENCE OF SPECIATION IN THE COD GENUS *GADUS*. *Can. J. Zool.* 64(7):1563-1566. 1986. In English with French summ. FR 32(1)
[Ottawa-Carleton Cent. Grad. Stud., Dep. Biol., Univ. Ottawa, ON K1N 6N5, Canada]

87-000336 Rosenfeld, M. J. GENETIC ANALYSIS OF THE COLORADO RIVER *GILA*: NON-FATAL SAMPLING, CELL CULTURE, CHROMOSOMAL ANALYSIS AND ELECTROPHORESIS. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:164. 1985. Abstract only. FR 32(1)

87-000337 Scheerer, P. D.; G. H. Thorgaard; F. W. Allendorf and K. L. Knudsen. ANDROGENETIC RAINBOW TROUT PRODUCED FROM INBRED AND OUTBRED SPERM SOURCES SHOW SIMILAR SURVIVAL. *Aquaculture* 57(1-4):289-298. 1986. FR 32(1)
[Dep. Zool., Wash. State Univ., Pullman]

87-000338 Shelton, C. J.; A. G. MacDonald and R. Johnstone. INDUCTION OF TRIPLOIDY IN RAINBOW TROUT USING NITROUS OXIDE. *Aquaculture* 58(1-2):155-159. 1986. FR 32(1)
[Johnstone: Mar. Lab., Victoria Rd., Torrey, Aberdeen, QB9 8D Scotland]

87-000339 Smith, A. C. SOME ADVANCES IN ELECTROPHORETIC SEPARATION OF PROTEINS FROM FISH EYE LENS CORES (NUCLEI): A BRIEF REPORT. *J. Aquaricult. Aquatic Sci.* 4(4):94. 1986. FR 32(1)
[Dep. Pathol., Coll. Med., Univ. South Fla., Tampa, FL 33622]

87-000340 Smoker, W. W. VARIABILTIY OF EMBRYO DEVELOPMENT RATE, FRY GROWTH, AND DISEASE SUSCEPTIBILITY IN HATCHERY STOCKS OF CHUM SALMON. *Aquaculture* 57(1-4):219-226. 1986. FR 32(1)
[Sch. Fish. Sci., Univ. Alaska, 11120 Glacier Hwy., Juneau, AK 99801]

87-000341 Tallman, R. F. GENETIC DIFFERENTIATION AMONG SEASONALLY DISTINCT SPAWNING POPULATIONS OF CHUM SALMON, *ONCORHYNCHUS KETA*. *Aquaculture* 57(1-4):211-217. 1986. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

87-000342 Taniguchi, N.; A. Kijima; T. Tamura; K. Takegami and I. Yamasaki. COLOR, GROWTH AND MATURATION IN PLOIDY-MANIPULATED FANCY CARP. *Aquaculture* 57(1-4):321-328. 1986. FR 32(1)
[Dep. Cult. Fish., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

87-000343 Thorgaard, G. H. PLOIDY MANIPULATION AND PERFORMANCE. *Aquaculture* 57(1-4):57-64. 1986. FR 32(1)
[Dep. Zool., Wash. State Univ., Pullman]

87-000344 Ueda, T.; M. Kobayashi and R. Sato. TRIPLOID RAINBOW TROUTS INDUCED BY POLYETHYLENE GLYCOL. *Proc. Jpn. Acad. Ser. B Phys. Biol. Sci.* 62(5):161-164. 1986. FR 32(1)
[Dep. Biol., Fac. Educ., Utsunomiya Univ., Utsunomiya 321, Japan]

87-000345 Uraiwan, S. and R. W. Doyle. REPLICATE VARIANCE AND THE CHOICE OF SELECTION PROCEDURES FOR TILAPIA *(OREOCHROMIS NILOTICUS)* STOCK IMPROVEMENT IN THAILAND. *Aquaculture* 57(1-4):93-98. 1986. FR 32(1)
[Natl. Inland Fish. Inst., Thailand]

87-000346 Vitturi, R.; A. Mazzola; M. Macaluso and E. Catalano. CHROMOSOMAL POLYMORPHISM ASSOCIATED WITH ROBERTSONIAN FUSION IN *SERIOLA DUMERILI* (RISSO, 1810) (PISCES: CARANGIDAE). *J. Fish Biol.* 29(5):529-534. 1986. FR 32(1)
[Inst. Zool., Univ. Palermo, via Archuafi 18, 90123 Palermo, Italy]

87-000347 Vitturi, R.; E. Catalano; M. Macaluso and B. Zava. KARYOTYPES OF NINE SPECIES OF THE FAMILY LABRIDAE. *Biol. Zentralbl.* 105(5):519-530. 1986. In German with English summ. FR 32(1)
[Ist. Zool., Via Archinafi 18, 90123 Palermo, Italy]

87-000348 Webb, C. J. KARYOLOGY OF THE INDO-PACIFIC *PARIOGLOSSUS RAOI* (HERRE) (TELEOSTEI: GOBIOIDEI) FROM FIJI. *Aust. J. Mar. Freshwater Res.* 37(3):347-351. 1986. FR 32(1)
[Univ. South Pac., P.O. Box 1168, Suva, Fiji]

87-000349 Wilson, M. R.; D. Middleton; C. Alford; J. T. Sullivan; G. W. Litman and G. W. Warr. PUTATIVE IMMUNOGLOBULIN VH GENES OF THE GOLDFISH, *CARASSIUS AURATUS*, DETECTED BY HETEROLOGOUS CROSS-HYBRIDIZATION WITH A MURINE VH PROBE. *Vet. Immunol. Immunopathol.* 12(1-4):21-28. 1986. FR 32(1)
[Dep. Biochem., Med. Univ. S.C., 171 Ashley Ave., Charleston 29425]

87-000350 Wise, D.; J. D. Yarbrough and R. T. Roush. CHROMOSOMAL ANALYSIS OF INSECTICIDE RESISTANT AND SUSCEPTIBLE MOSQUITOFISH. *J. Hered.* 77:345-348. 1986. FR 32(1)
[Dep. Biol. Sci., Miss. State Univ., Mississippi State 39762]

BEHAVIOR

87-000351 Allan, J. R. and T. J. Pitcher. SPECIES SEGREGATION DURING PREDATOR EVASION IN CYPRINID FISH SHOALS. *Freshwater Biol.* 16(5):653-659. 1986. FR 32(1)
[Sch. Anim. Biol., Univ. Wales at Bangor, Bangor, Gwynedd LL57 2UW, Wales]

BEHAVIOR (CONTINUED)

87-000352 Aoki, I. A SIMULATION EXPERIMENT ON INDIVIDUAL DIFFERENCES IN SCHOOLING BEHAVIOR OF FISH. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1115-1119. 1986. FR 32(1)
[Ocean Res. Inst., Univ. Tokyo, Nakano, Tokoyo 164, Japan]

87-000353 Bakker, T. C. M. AGGRESSIVENESS IN STICKLEBACKS (*GASTEROSTEUS ACULEATUS* L.): A BEHAVIOUR-GENETIC STUDY. *Behaviour* 98(1-4):1-144. 1986. FR 32(1)
[Ethol. Dep., Zool. Lab., Univ. Leiden, P.O. Box 9516, 2300 RA Leiden, Netherlands]

87-000354 Bass, A. H. A HORMONE-SENSITIVE COMMUNICATION-SYSTEM IN AN ELECTRIC FISH. *J. Neurobiol.* 17(3):131-156. 1986. FR 32(1)
[Neurobiol. Behav. Sect., Cornell Univ., Ithaca, NY 14853]

87-000355 Bisson, P. A. CHANNEL HYDRAULICS, BODY MORPHOLOGY, AND HABITAT SELECTION BY SALMONID FISHES IN PACIFIC NORTHWEST STREAMS. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:204. 1985. Abstract only. FR 32(1)
[Weyerhaeuser Co., Tacoma, WA 98477]

87-000356 Brooks, J. E. and L. Riley. MICROHABITAT UTILIZATION BY SUB-ADULT *GILA CYPHA* IN THE LITTLE COLORADO RIVER, GRAND CANYON. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:233. 1985. FR 32(1)
[Ariz. Game Fish Dep., Phoenix]

87-000357 Carlisle, T. R. PARENTAL RESPONSE TO BROOD SIZE IN A CICHLID FISH. *Anim. Behav.* 33(1):234-238. 1985. FR 32(1)
[Arctic Inst. N. Am., Univ. Calgary, 2500 University Dr. NW, Calgary, AB T2N 1N4, Canada]

87-000358 Carlson, P. R., Jr.; L. A. Yarbro; J. K. Stanley and H. Arnold. MULTIPLE STABLE ISOTOPE STUDIES OF JUVENILE FISH HABITAT UTILIZATION IN TWO SUBTROPICAL ESTUARIES. *Prog. IV Int. Congr. Ecol.* p. 110. 1986. Abstract only. FR 32(1)
[Fla. Dep. Nat. Resour., St. Petersburg 33700]

87-000359 Clayton, D. A. and T. C. Vaughan. TERRITORIAL ACQUISITION IN THE MUDSKIPPER *BOLEOPHTHALMUS BODDARTI* (TELEOSTEI, GOBIIDAE) ON THE MUDFLATS OF KUWAIT. *J. Zool. (Lond.)* 209(4):501-519. 1986. FR 32(1)
[Dep. Zool., Univ. Kuwait, P.O. Box 5969, Kuwait]

87-000360 Collura-Citron, J. and J. A. Mecham. NATURAL AND INDUCED BIOLOGICAL PIGMENTATION ASSOCIATED WITH AGONISTIC BEHAVIOR IN THE BLUEGILL SUNFISH, *LEPOMIS MACROCHIRUS*. *Bios* 57(1):3-13. 1986. FR 32(1)
[Dep. Biol., Coll. New Rochelle, New Rochelle, NY 10805]

87-000361 Cunjak, R. A. and G. Power. WINTER HABITAT UTILIZATION BY STREAM RESIDENT BROOK TROUT *(SALVELINUS FONTINALIS)* AND BROWN TROUT *(SALMO TRUTTA)*. *Can. J. Fish. Aquatic Sci.* 43(10):1970-1981. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Univ. Waterloo, Waterloo, ON N2L 3G1, Canada]

BEHAVIOR (CONTINUED)

87-000362 Cunjak, R. A. and J. M. Green. INFLUENCE OF WATER TEMPERATURE ON BEHAVIOURAL INTERACTIONS BETWEEN JUVENILE BROOK CHARR, *SALVELINUS FONTINALIS*, AND RAINBOW TROUT, *SALMO GAIRDNERI*. *Can. J. Zool.* 64(6):1288-1291. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Univ. Waterloo, Waterloo, ON N2L 3G1, Canada]

87-000363 Eastman, J. T. THE EVOLUTION OF NEUTRALLY BUOYANT NOTOTHENIOID FISHES: THEIR SPECIALIZATIONS AND POTENTIAL INTERACTIONS IN THE ANTARCTIC MARINE FOOD WEB. *In: W. R. Siegfried, P. R. Condy, and R. M. Laws, (eds.). Antarctic Nutrient Cycles and Food Webs. Springer-Verlag. 1984.* p. 430-436. FR 32(1)
[Dep. Zool., Irvine Hall, Ohio Univ., Athens, OH 45701]

87-000364 Elliott, J. M. SPATIAL DISTRIBUTION AND BEHAVIOURAL MOVEMENTS OF MIGRATORY TROUT *SALMO TRUTTA* IN A LAKE DISTRICT STREAM. *J. Anim. Ecol.* 55(3):907-922. 1986. FR 32(1)
[Freshwater Biol. Assoc., Windermere Lab., Ambleside, Cumbria, England]

87-000365 Felley, J. D. and S. M. Felley. HABITAT PARTITIONING OF FISHES IN AN URBAN ESTUARINE BAYOU. *Estuaries* 9(3):208-218. 1986. FR 32(1)
[Dep. Biol. Environ. Sci., McNeese State Univ., Lake Charles, LA 70609]

87-000366 Gilliam, J. F. and D. F. Fraser. HABITAT SELECTION UNDER A TRADEOFF OF FORAGING RATE AND MORTALITY RATE: A SIMPLE MODEL PREDICTS CHOICE BY CREEK CHUBS. *Prog. IV Int. Congr. Ecol.* p. 159. 1986. Abstract only. FR 32(1)
[State Univ. N.Y., Albany 12222]

87-000367 Goldman, M.; J. L. DeSantis and E. Tobach. RESPONSES OF THE FRY OF A MALE MOUTH-BROODING SPECIES (*SAROTHERODON MELANOTHERON*) TO LIGHT AND CONSPECIFICS. *Anim. Behav.* 34(4):1261-1268. 1986. FR 32(1)
[Am. Mus. Nat. Hist., Central Park West at 79th St., New York, NY 10024]

87-000368 Hagedorn, M. and W. Heiligenberg. COURT AND SPARK: ELECTRIC SIGNALS IN THE COURTSHIP AND MATING OF GYMNOTOID FISH. *Anim. Behav.* 33(1):254-265. 1985. FR 32(1)
[Sect. Neurobiol. Behav., Cornell Univ., Ithaca, NY 14853]

87-000369 Hassan, E. ON THE DISCRIMINATION OF SPATIAL INTERVALS BY THE BLIND CAVE FISH *(ANOPTICHTHYS JORDANI)*. *J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 159(5):701-710. 1986. FR 32(1)
[Arbeitsgr. III (Biophys.), Inst. Zool., J. Guttenberg-Univ., Saarstr. 21, D-6500 Mainz, West Germany]

87-000370 Hassler, T. J. IMPRINTING JUVENILE SALMON WITH MORPHOLINE. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:205. 1985. Abstract only. FR 32(1)
[Coop. Fish. Res. Unit, Humboldt State Univ., Arcata 95521]

87-000371 Hearn, W. E. and B. E. Kynard. HABITAT UTILIZATION AND BEHAVIORAL INTERACTION OF JUVENILE ATLANTIC SALMON *(SALMO SALAR)* AND RAINBOW TROUT *(S. GAIRDNERI)* IN TRIBUTARIES OF THE WHITE RIVER OF

BEHAVIOR (CONTINUED)

87-000371 CONTINUED VERMONT. *Can. J. Fish. Aquatic Sci.* 43(10):1988-1998. 1986. In English with French summ. FR 32(1)
[Normandeau Assoc., Bedford, NH 03101]

87-000372 Iwata, M.; H. Ogura; S. Komatsu and K. Suzuki. LOSS OF SEAWATER PREFERENCE IN CHUM SALMON *(ONCORHYNCHUS KETA)* FRY RETAINED IN FRESH WATER AFTER MIGRATION SEASON. *J. Exp. Zool.* 240(3):369-376. 1986. FR 32(1)
[Otsuchi Mar. Res. Cent., Ocean Res. Inst., Univ. Tokyo, Otsuchi, Japan]

87-000373 Magurran, A. E. PREDATOR INSPECTION BEHAVIOUR IN MINNOW SHOALS: DIFFERENCES BETWEEN POPULATIONS AND INDIVIDUALS. *Behav. Ecol. Sociobiol.* 19(4):267-273. 1986. FR 32(1)
[Sch. Anim. Biol., Univ. Coll. North Wales, Bangor, Gwynedd LL57 2UW, U.K.]

87-000374 Margenau, T. HABITAT PREFERENCE AND MOVEMENT OF NORTHERN PIKE DURING FALL AND EARLY WINTER IN POTATO LAKE, WASHBURN COUNTY. *Wis. Dep. Nat. Resour. Res. Rep.* 139. 18p. 1986. FR 32(1)
[Wis. Dep. Nat. Resour., Bur. Res., Spooner]

87-000375 McIvor, C. C. and W. E. Odum. THE ROLE OF STREAMBED GEOMORPHOLOGY IN STRUCTURING A TIDAL FRESHWATER MARSH FISH ASSEMBLAGE. *Prog. IV Int Congr. Ecol.* p. 233. 1986. Abstract only. FR 32(1)
[Univ. Va., Charlottesville 22903]

87-000376 Meyer, A. CHANGES IN BEHAVIOR WITH INCREASING EXPERIENCE WITH A NOVEL PREY IN FRY OF THE CENTRAL AMERICAN CICHLID, *CICHLASOMA MANAGUENSE* (TELEOSTEI: CICHLIDAE). *Behaviour* 98(1-4):145-167. 1986. FR 32(1)
[Dep. Zool., Univ. Calif., Berkeley 94720]

87-000377 Moffat, R. and W. Davison. A NOTE ON THE SWIMMING PERFORMANCE OF TWO SPECIES OF TELEOST FISH, THE TROUT, *SALMO TRUTTA* AND THE KOARO, *GALAXIAS BREVIPINNIS. Mauri Ora* 13:71-79. 1986. FR 32(1)
[Dep. Zool., Univ. Canterbury, Christchurch 1, New Zealand]

87-000378 Morse, M. N. and H. R. MacCrimmon. CHARACTERIZATION OF POST EMERGENT BEHAVIOUR, DISTRIBUTION, AND GROWTH, BY YOUNG-OF-THE-YEAR BROOK TROUT *SALVELINUS FONTINALIS* AND BROWN TROUT *SALMO TRUTTA* IN ALLOPATRY AND SYMPATRY.*In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 93-103. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000379 Paszkowski, C. A.; W. M. Tonn and I. J. Holopainen. BODY SIZE, PREY SIZE AND INTERSPECIFIC COMPETITION IN CRUCIAN CARP *(CARASSIUS CARASSIUS). Prog. IV Int. Congr. Ecol.* p. 268. 1986. Abstract only. FR 32(1)
[Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-000380 Quinn, T. P. and C. A. Busack. CHEMOSENSORY RECOGNITION OF SIBLINGS IN JUVENILE COHO SALMON (*ONCORHYNCHUS KISUTCH*). *Anim. Behav.* 31(1):51-56. 1985. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

BEHAVIOR (CONTINUED)

87-000381 Quinn, T. P. HOMING AND THE EVOLUTION OF SOCKEYE SALMON *(ONCORHYNCHUS NERKA). Contrib. Mar. Sci.* 27(Suppl.):353-366. 1985. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-000382 Rankin, M. A. (ed.). MIGRATION: MECHANISMS AND ADAPTIVE SIGNIFICANCE. *Contrib. Mar. Sci.* 27(Suppl.):1-868. 1985. FR 32(1)
[Dep. Zool., Univ. Tex., Austin 78712]

87-000383 Robertson, D. R. and S. D. Gaines. INTERFERENCE COMPETITION STRUCTURES HABITAT USE IN A LOCAL ASSEMBLAGE OF CORAL REEF SURGEONFISHES. *Ecology* 67(5):1372-1383. 1986. FR 32(1)
[Smithsonian Trop. Res. Inst., APO Miami 34002-0011]

87-000384 Sand, O. and H. E. Karlsen. DETECTION OF INFRASOUND BY THE ATLANTIC COD. *J. Exp. Biol.* 125:197-204. 1986. FR 32(1)
[Dep. Biol., Univ. Oslo, Blindern, Oslo 3, Norway]

87-000385 Schlosser, I. J. EXPERIMENTAL EVALUATION OF AGE RELATED HABITAT USE BY STREAM FISHES. *Prog. IV Int. Congr. Ecol.* p. 300. 1986. Abstract only. FR 32(1)
[Univ. N. Dak., Grand Forks 58202]

87-000386 Sorensen, P. W. ORIGINS OF THE FRESHWATER ATTRACTANT(S) OF MIGRATING ELVERS OF THE AMERICAN EEL, *ANGUILLA ROSTRATA. Environ. Biol. Fishes* 17(3):185-200. 1986. FR 32(1)
[Dep. Zool., Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-000387 Stenson, J. A. E. STRATEGIES FOR PREY-SELECTION AND ANTI-PREDATOR DEFENCE IN LAKE ECOSYSTEMS. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 150-160. 1985. FR 32(1)
[Dep. Zool., Univ. Gothenburg, P.O. Box 25059, S-400 31 Gothenburg, Sweden]

87-000388 Swales, S.; R. B. Lauzier and C. D. Levings. WINTER HABITAT PREFERENCES OF JUVENILE SALMONIDS IN TWO INTERIOR RIVERS IN BRITISH COLUMBIA. *Can. J. Zool.* 64(7):1506-1514. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Oceans, West Vancouver Lab., 4160 Marine Dr., Vancouver, BC V7V 1N6, Canada]

LIFE HISTORY-GENERAL WORKS

87-000389 Acuna, A. A. and J. P. Castello. [*ENGRAULIS ANCHOITA* (HUBBS & MARINI 1935) IN SOUTHERN BRAZIL.] *Rev. Biol. Mar.* 22(1):31-60. 1986. In Spanish with English summ. FR 32(1)
[Area Biol. Tecnol. Mar., Pontificia Univ. Catol. Chile, Sede Reg. Talcahuano, Casilla 127, Talcahuano, Chile]

87-000390 Aho, J. M.; C. S. Anderson and J. W. Terrell. HABITAT SUITABILITY INDEX MODELS AND INSTREAM FLOW SUITABILITY CURVES: REDBREAST SUNFISH. *Biol. Rep.* 82(10.19). vi+23p. 1986. FR 32(1)
[Savannah River Ecol. Lab., Univ. Ga., Drawer E, Aiken, SC 29801]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

87-000391 Arnoldi, D. C. ASPECTS OF THE BIOLOGY OF SPOTTED SEATROUT IN CALCASIEU LAKE, LOUISIANA, WITH MANAGEMENT IMPLICATIONS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:470-479. 1984. FR 32(1)
[La. Dep. Wildl. Fish., 1213 N. Lakeshore Dr., Lake Charles 70601]

87-000392 Barnhart, R. A. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC SOUTHWEST). STEELHEAD. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.60). vi+21p. 1986. FR 32(1)
[Calif. Coop. Fish. Res. Unit, Humboldt State Univ., Arcata, CA 95521]

87-000393 Bortone, S. A. and J. L. Williams. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (SOUTH FLORIDA). GRAY, LANE, MUTTON AND YELLOWTAIL SNAPPERS. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.52). vi+18p. 1986. FR 32(1)
[Dep. Biol., Univ. West Fla., Pensacola 32514]

87-000394 Bradstreet, M. S. W.; K. J. Finley; A. D. Sekerak; W. B. Griffiths; C. R. Evans; M. F. Fabijan and H. E. Stallard. ASPECTS OF THE BIOLOGY OF ARCTIC COD *(BOREOGADUS SAIDA)* AND ITS IMPORTANCE IN ARCTIC MARINE FOOD CHAINS. *Can. Tech. Rep. Fish. Aquatic Sci.* No. 1491. viii+193p. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Oceans, Winnipeg, MB R3T 2N6, Canada]

87-000395 Brillet, C. BEHAVIOURAL OBSERVATIONS ON THE AMPHIBIOUS FISH *LOPHALTICUS KIRKII*. A COMPARISON WITH THE MUDSKIPPER *PERIOPHTALMUS SOBRINUS*. *Terre Vie* 41(4):361-376. 1986. In French with English summ. FR 32(1)
[Dep. Psychophysiol. Comp., I.N.P./C.N.R.S., Marseille, France]

87-000396 Bulow, F. J.; L. Swann and J. R. Estes. IMPACT OF RAINBOW TROUT INTRODUCTION ON A BIG SOUTH FORK STREAM FISHERY. *Tenn. Tech. J.* 20:43. 1985. Abstract only. FR 32(1)
[Dep. Biol., Tenn. Tech. Univ., Cookville]

87-000397 Coetzee, P. S. DIET COMPOSITION AND BREEDING CYCLE OF BLACKTAIL, *DIPLODUS SARGUS CAPENSIS* (PISCES: SPARIDAE), CAUGHT OFF ST. CROIX ISLAND, ALGOA BAY, SOUTH AFRICA. *S. Afr. J. Zool.* 21(3):237-243. 1986. In English with Afrikaans summ. FR 32(1)
[Dep. Zool., Univ. Port Elizabeth, P.O. Box 1600, Port Elizabeth, 6000 South Africa]

87-000398 Crabtree, R. E. and K. J. Sulak. A CONTRIBUTION TO THE LIFE HISTORY AND DISTRIBUTION OF ATLANTIC SPECIES OF THE DEEP-SEA FISH GENUS *CONOCARA* (ALEPOCEPHALIDAE). *Deep-Sea Res. A Oceanogr. Res. Pap.* 33(9):1183-1201. 1986. FR 32(1)
[P.O. Box 1320, Islamorada, FL 33036]

87-000399 Crance, J. H. HABITAT SUITABILITY INDEX MODELS AND INSTREAM FLOW SUITABILITY CURVES: SHORTNOSE STURGEON. *Biol. Rep.* 82(10.129). vi+31p. 1986. FR 32(1)
[NEC, U.S. FWS, 2627 Redwing Rd., Fort Collins, CO 80526-2899]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

87-000400 Darcy, G. H. SYNOPSIS OF BIOLOGICAL DATA ON THE PORGIES, *CALAMUS ARCTIFRONS* AND *C. PRORIDENS* (PISCES: SPARIDAE). *NOAA Tech. Rep. NMFS* 44. iii+19p. 1986. FR 32(1)
[NMFS, 75 Virginia Beach Dr., Miami, FL 33149-1099]

87-000401 Dauble, D. D. LIFE HISTORY AND ECOLOGY OF THE LARGESCALE SUCKER *(CATOSTOMUS MACROCHEILUS)* IN THE COLUMBIA RIVER. *Am. Midl. Nat.* 116(2):356-367. 1986. FR 32(1)
[Earth Sci. Dep., Battelle Northwest Lab., Richland, WA 99352]

87-000402 Gilbert, C. R. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (SOUTH FLORIDA): SOUTHERN, GULF, AND SUMMER FLOUNDERS. *U.S. Fish Wildl. Serv. Biol. Rep.* 80(11.54). viii+27p. 1986. FR 32(1)
[Fla. State Mus., Univ. Fla., Gainesville 32611]

87-000403 Godcharles, M. F. and M. D. Murphy. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (SOUTH FLORIDA). KING AND SPANISH MACKEREL. *U.S. Fish Wildl. Serv. Biol. Rep.* 82911.58). vii+18p. 1986. FR 32(1)
[Div. Mar. Resour., Fla. Dep. Nat. Resour., 100 8th Ave. S.E., St. Petersburg, FL 33701]

87-000404 Haynes, C. M. and R. T. Muth. THE EARLY LIFE HISTORY OF COLORADO SQUAWFISH, *PTYCHOCHEILUS LUCIUS*, IN THE UPPER GREEN-YAMPA RIVER SYSTEM, COLORADO AND UTAH. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:167. 1985. Abstract only. FR 32(1)
[Colo. Div. Wildl., Fort Collins 80526]

87-000405 Hotalling, D. R. and C. A. Taber. LIFE HISTORY OF THE STIPPLED DARTER *ETHEOSTOMA PUNCTULATUM*. *Trans. Mo. Acad. Sci.* 19:122. 1985. Abstract only. FR 32(1)
[Dep. Biol., Mo. State Univ., Springfield 65804]

87-000406 Hubold, G. THE EARLY LIFE-HISTORY OF THE HIGH-ANTARCTIC SILVERFISH, *PLEURAGRAMMA ANTARCTICUM*. *In: W. R. Siegfried, P. R. Condy, and R. M. Laws, (eds.). Antarctic Nutrient Cycles and Food Webs. Springer-Verlag. 1984.* p. 445-451. FR 32(1)
[Alfred-Wegener-Inst. Polarforsch., Columbus Cent., D-2850 Bremerhaven, West Germany]

87-000407 Humphreys, M.; J. L. Wilson and D. C. Peterson. GROWTH AND FOOD HABITS OF YOUNG OF YEAR WALLEYE X SAUGER HYBRIDS IN CHEROKEE RESERVOIR, TENNESSEE. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:413-420. 1984. FR 32(1)
[N.C. Wildl. Resour. Comm., Raleigh]

87-000408 Johnson, D. R. and W. Seaman, Jr. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (SOUTH FLORIDA). SPOTTED SEATROUT. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.43). vii+18p. 1986. FR 32(1)
[Sea Grant Coll., Univ. Fla., Gainesville 32611]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

87-000409 Klemetsen, A.; P. E. Grotnes; H. Holthe and K. Kristoffersen. BEAR ISLAND CHARR. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 98-119. 1985. FR 32(1)
[Univ. Tromso, P.O. Box 3085, Guleng, N-9001 Tromso, Norway]

87-000410 Miller, J. M.; L. B. Crowder and M. L. Moser. MIGRATION AND UTILIZATION OF ESTUARINE NURSERIES BY JUVENILE FISHES: AN EVOLUTIONARY PERSPECTIVE. *Contrib. Mar. Sci.* 27(Suppl.):338-352. 1985. FR 32(1)
[Zool. Dep., N.C. State Univ., Raleigh 27695]

87-000411 Mullen, D. M.; C. W. Fay and J. R. Moring. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (NORTH ATLANTIC): ALEWIFE/BLUEBACK HERRING. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.51). vi+21p. 1986. FR 32(1)
[Me. Coop. Fish. Res. Unit, 313 Murray Hall, Univ. Me., Orono 04469]

87-000412 Nash, R. D. M. ASPECTS OF THE GENERAL BIOLOGY OF VAHL'S EELPOUT, *LYCODES VAHLII GRACILIS* M. SARS, 1867 (PISCES, ZOARCIDAE), IN OSLOFJORDEN, NORWAY. *Sarsia* 71(3-4):289-296. 1986. FR 32(1)
[Inst. Biol., Avd. Mar. Zool. Mar. Kjemi, Univ. Oslo, PB 1064, N-0316 Oslo 3, Norway]

87-000413 Olatunde, A. A. LENGTH-WEIGHT RELATIONSHIP AND THE DIETS OF *CLARIAS LAZERA* (CUVIER AND VALLENCIENNES), FAMILY CLARIIDAE (OSTEICHTHYES: SILURIFORMES) IN ZARIA, NIGERIA. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:183-192. 1983(1986). FR 32(1)
[Dep. Biol. Sci., Ahmadu Bello Univ., Zaria, Nigeria]

87-000414 Pauley, G. B.; B. M. Bortz and M. F. Shepard. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC NORTHWEST): STEELHEAD TROUT. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.62). viii+24p. 1986. FR 32(1)
[Wash. Coop. Fish. Res. Unit, Coll. Ocean Fish. Sci., Univ. Wash., Seattle 98195]

87-000415 Pearce, W. A. METHUSELAH OF FRESHWATER FISHES: THE LAKE STURGEON. *Conservationist* 41(3):10-13. 1986. FR 32(1)
[N.Y. Dep. Environ. Conserv., Cape Vincent]

87-000416 Raleigh, R. F.; W. J. Miller and P. C. Nelson. HABITAT SUITABILITY INDEX MODELS AND INSTREAM FLOW SUITABILITY CURVES: CHINOOK SALMON. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(10.122). viii+64p. 1986. FR 32(1)
[P.O. Box 625, Council, ID 83612]

87-000417 Raleigh, R. F.; L. D. Zuckerman and P. C. Nelson. HABITAT SUITABILITY INDEX MODELS AND INSTREAM FLOW SUITABILITY CURVES: BROWN TROUT. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(10.124). vii+65p. 1986. FR 32(1)
[P.O. Box 625, Council, ID 83612]

87-000418 Raleigh, R. F.; W. J. Miller and P. C. Nelson. HABITAT SUITABILITY INDEX MODELS AND INSTREAM FLOW SUITABILITY CURVES: CHINOOK SALMON. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(10.122). viii+64p. 1986.

LIFE HISTORY-GENERAL WORKS (CONTINUED)

87-000418 CONTINUED FR 32(1)
[P.O. Box 625, Council, ID 83612]

87-000419 Sagua, V. O. PRELIMINARY OBSERVATIONS ON THE FEEDING, HABITS AND REPRODUCTION BIOLOGY OF *GYMNARCHUS NILOTICUS* FROM LAKE CHAD. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:179-182. 1983(1986). FR 32(1)
[Lake Chad Res. Inst., Maiduguri, Nigeria]

87-000420 Scoppettone, G. G.; M. Coleman and G. A. Wedemeyer. LIFE HISTORY AND STATUS OF THE ENDANGERED CUI-UI OF PYRAMID LAKE, NEVADA. *U.S. Fish Wildl. Serv. Fish Wildl. Res.* 1. 23p. 1986. FR 32(1)
[U.S. FWS, Great Basin Complex Off., 4600 Kietzke Lane, Reno, NV 89502]

87-000421 Snyder, D. E. LARVAL FISH ECOLOGY: A CRITICAL MANAGEMENT CONCERN. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:166. 1985. Abstract only. FR 32(1)
[Larval Fish Lab., Colo. State Univ., Fort Collins 80523]

87-000422 Taber, C. A. and B. A. Taber. REPRODUCTION AND POPULATION FEATURES OF THE ARKANSAS DARTER *ETHEOSTOMA CRAGINI*. *Trans. Mo. Acad. Sci.* 19:122. 1985. Abstract only. FR 32(1)
[Dep. Biol., Mo. State Univ., Springfield 65804]

87-000423 Threader, R. W. and C. S. Brousseau. BIOLOGY AND MANAGEMENT OF THE LAKE STURGEON IN THE MOOSE RIVER, ONTARIO. *N. Am. J. Fish. Manage.* 6(3):383-390. 1986. FR 32(1)
[50-2050 Upper Middle Rd., Burlington, ON L7P 3R9, Canada]

87-000424 Tyus, H. M. and W. B. Harned. DISTRIBUTION, SPAWNING AND HABITAT USE OF THE RAZORBACK SUCKER IN THE GREEN RIVER BASIN, COLORADO AND UTAH, 1979-84. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:193-202. 1985. FR 32(1)

87-000425 Weinstein, M. P. HABITAT SUITABILITY INDEX MODELS: INLAND SILVERSIDE. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(10.120). vi+25p. 1986. FR 32(1)
[Lawler, Matusky & Skelly Engineers, One Blue Hill Plaza, Pearl River, NY 10965]

87-000426 Wenner, C. A.; W. A. Roumillat and C. W. Waltz. CONTRIBUTIONS TO THE LIFE HISTORY OF BLACK SEA BASS, *CENTROPRISTIS STRIATA*, OFF THE SOUTHEASTERN UNITED STATES. *NOAA Fish. Bull.* 84(3):723-741. 1986. FR 32(1)
[Mar. Resour. Res. Inst., S.C. Wildl. Mar. Resour. Dep., P.O. Box 12559, Charleston 29412]

87-000427 Williams, H. and G. Pullen. A SYNOPSIS OF BIOLOGICAL DATA ON THE JACK MACKEREL *TRACHURUS DECLIVIS* JENYNS. *Tasmania Mar. Lab. Tech. Rep.* 10. 34p. 1986. FR 32(1)
[Tasmania Dep. Sea Fish., Mar. Lab., Crayfish Point, Taroona, Australia 7006]

LIFE HISTORY-GENERAL WORKS (CONTINUED)

87-000428 Winter, J. D. HABITAT PREFERENCES AND REPRODUCTIVE CONDITIONS OF FISHES IN McMURDO SOUND, ANTARCTICA. *Prog. IV Int. Congr. Ecol.* p. 355. 1986. Abstract only. FR 32(1)
[State Univ. N.Y., Fredonia 14063]

87-000429 Zver'kova, L. M. and R. K. Safronova. SOME MORPHOMETRIC AND ECOPHYSIOLOGICAL PROPERTIES OF YOUNG WALLEYE POLLOCK, *THERAGRA CHALCOGRAMMA*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):26-33. 1986. FR 32(1)
[SakhTINRO, Yazhno-Sakhalinsk, USSR]

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC.

87-000430 Bagliniere, J. and A. Champigneulle. POPULATION ESTIMATES OF JUVENILE ATLANTIC SALMON, *SALMO SALAR*, AS INDICES OF SMOLT PRODUCTION IN THE R. SCORFF, BRITTANY. *J. Fish Biol.* 29(4):467-482. 1986. FR 32(1)
[Lab. Ecol. Hydrobiol., INRA, 65 Rue de St Brieuc, 35042 Rennes Cedex, France]

87-000431 Balogun, J. K. FISH DISTRIBUTION IN KAINJI LAKE, NIGERIA. *J. Fish Biol.* 29(4):489-498. 1986. FR 32(1)
[Kainji Lake Res. Inst., P.M.B. 666, New Bussa, Kwara State, Nigeria]

87-000432 Beverton, R. J. H.; J. G. Cooke; J. B. Csirke; R. W. Doyle; G. Hempel; S. J. Holt; A. D. MacCall; D. J. Policansky; J. Roughgarden; J. G. Shepherd; M. P. Sissenwine and P. H. Wiebe. DYNAMICS OF SINGLE SPECIES. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 13-58. 1984. FR 32(1)

87-000433 Carter, J. G. and V. A. Lamarra. DISTRIBUTION, HABITAT AND FOOD PREFERENCE OF NATIVE AND INTRODUCED FISHES IN THE WHITE RIVER, UTAH AND COLORADO. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:144. 1985. Abstract only. FR 32(1)
[Ecosyst. Res. Inst., Logan, UT 84321]

87-000434 Cochrane, K. L. MORTALITY OF YOUNG-OF-THE-YEAR *OREOCHROMIS MOSSAMBICUS* IN HARTBEESPOORT DAM, SOUTH AFRICA. *J. Fish Biol.* 29(5):623-630. 1986. FR 32(1)
[Natl. Inst. Water Res., P.O. Box 395, Pretoria 0001, South Africa]

87-000435 Colvin, M. A. and F. W. Vasey. A METHOD OF QUALITATIVELY ASSESSING WHITE CRAPPIE POPULATIONS IN MISSOURI RESERVOIRS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 79-85. 1986. FR 32(1)
[Mo. Dep. Conserv., 1110 College Ave., Columbia 65201]

87-000436 Cornus, H. P. DEVELOPMENT OF A BOTTOM-TRAWL SURVEY FOR ATLANTIC COD *(GADUS MORHUA)* OFF EAST GREENLAND, 1980-85. *Northwest. Atl. Fish. Organ. Sci. Counc. Stud.* No. 10. p. 13-20. 1986. FR 32(1)
[Bundesforsch. Fisch., Inst. Seefisch., Palmaille 9, D-2000 Hamburg 50, West Germany]

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC. (CONTINUED)

87-000437 Eliassen, J. [INVESTIGATIONS ON THE DISTRIBUTION, OCCURRENCE AND POPULATION STRUCTURE OF THE ROUNDNOSE GRENADIER (*CORYPHAENOIDES RUPESTRIS* GUNNERUS) IN THE COASTAL WATERS OFF TRONDELAG, NORWAY.] *Fisken Havet* 1986(1):1-19. 1986. In Norwegian with English summ. FR 32(1)
[Inst. Fiskerifag, Univ. Tromso, Postboks 3083, 9001 Tromso, Norway]

87-000438 Engstrom-Heg, R. PREDICTION OF WILD BROWN TROUT CATCH RATES FROM ESTIMATED YEARLING POPULATION DENSITY AND FISHING INTENSITY. *N. Am. J. Fish. Manage.* 6(3):410-417. 1986. FR 32(1)
[N.Y. Dep. Environ. Conserv., Rt. 10, Stamford 12167]

87-000439 Evlanov, I. A. INTRAPOPULATIONAL STRUCTURE OF ROACH, *RUTILUS RUTILUS*, OF LAKE VISTYNETSKOE. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):143-147. 1986. FR 32(1)
[YAO VostsibrybNII, Prockt, USSR]

87-000440 Ford, T. E. and E. Mercer. DENSITY, SIZE DISTRIBUTION AND HOME RANGE OF AMERICAN EELS, *ANGUILLA ROSTRATA* IN A MASSACHUSETTS SALT MARSH. *Environ. Biol. Fishes* 17(4):309-314. 1986. FR 32(1)
[Harvard Univ., Div. Appl. Sci., Lab. Microbiol. Ecol., 40 Oxford St., Cambridge, MA 02138]

87-000441 Hansen, H. and E. Buch. PREDICTION OF YEAR-CLASS STRENGTH OF ATLANTIC COD *(GADUS MORHUA)* OFF WEST GREENLAND. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 10. p. 7-11. 1986. FR 32(1)
[Greenland Fish. Environ. Res. Inst., Tagensvej 135, DK-2200 Copenhagen N, Denmark]

87-000442 Harper, J. L. and H. E. Namminga. FISH POPULATION TRENDS IN TEXOMA RESERVOIR FOLLOWING ESTABLISHMENT OF STRIPED BASS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 156-165. 1986. FR 32(1)
[Okla. Dep. Wildl. Conserv., P.O. Box 53465, Oklahoma City 73152]

87-000443 Hay, D. W. SALMON STUDIES IN THE GIRNOCK BURN. *Scott. Fish. Bull.* 49. p.17-21. 1986. FR 32(1)
[Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

87-000444 Hill, K. R. MORTALITY AND STANDING STOCKS OF GRASS CARP PLANTED IN TWO IOWA LAKES. *N. Am. J. Fish. Manage.* 6(3):449-451. 1986. FR 32(1)
[Ia. Dep. Nat. Resour., Cold Springs Lake Park, Lewis 51544]

87-000445 Holtby, L. B. and M. C. Healey. SELECTION FOR ADULT SIZE IN FEMALE COHO SALMON *(ONCORHYNCHUS KISUTCH). Can. J. Fish. Aquatic Sci.* 43(10):1946-1959. 1986. In English with French summ. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-000446 Jakes, D. S. and R. J. Gilbert. SIZE STRUCTURES AND CATCH RATES OF UNEXPLOITED LARGEMOUTH BASS POPULATIONS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 307-308. 1986. Abstract only. FR 32(1)
[Coop. Fish. Res. Unit, Sch. For. Resour., Univ. Ga., Athens 30602]

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC. (CONTINUED)

87-000447 Johannessen, A. RECRUITMENT STUDIES OF HERRING (*CLUPEA HARENGUS* L.) IN LINDAASPOLLENE, WESTERN NORWAY, 1-3. *Fiskeridir. Skr.* 18(4):139-240. 1986. FR 32(1)
[Dep. Fish. Biol., Univ. Bergen, P.O. Box 1839, N-5011 Bergen, Norway]

87-000448 Kazakov, R. V.; S. A. Il'enkova; V. V. Kozlov and M. N. Mel'nikova. STOCKS OF ATLANTIC SALMON AND THEIR MIGRATIONS IN RIVERS OF THE USSR OF THE BALTIC SEA BASIN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):14-25. 1986. FR 32(1)
[GosNIORKH, Leningrad, USSR]

87-000449 Kobata, T. [ON THE TENDENCY OF LONG-TERM DECREASING CATCH OF ADULT YELLOWTAIL *SERIOLA QUINQUERADIATA* IN ITS PACIFIC SUB-POPULATION.] *Bull. Jpn. Soc. Sci. Fish.* 52(7):1181-1187. 1986. In Japanese with English summ. FR 32(1)
[Sagami-wan Br., Kanagawa Pref. Fish. Exp. Stn., 1-8-1, Hayakawa, Odawara 250, Japan]

87-000450 Larraneta, M. G. DYNAMICS OF YELLOWTAIL FLOUNDER AND AMERICAN PLAICE POPULATIONS ON THE GRAND BANK. *Northwest. Atl. Fish. Organ. Sci. Counc. Stud.* No. 10. p. 35-45. 1986. FR 32(1)
[Inst. Invest. Pesq., Muelle de Bouzas, Vigo, Spain]

87-000451 McEachron, L. W. and A. W. Green. ASSESSMENT OF ANNUAL RELATIVE ABUNDANCE AND MEAN LENGTH OF SIX MARINE FISHES IN TEXAS COASTAL WATERS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:506-519. 1984. FR 32(1)
[Tex. Parks Wildl. Dep., Rockport 78382]

87-000452 Nelson, W. R. and D. W. Ahrenholz. POPULATION AND FISHERY CHARACTERISTICS OF GULF MENHADEN, *BREVOORTIA PATRONUS*. *NOAA Fish. Bull.* 84(2):311-325. 1986. FR 32(1)
[NMFS, 75 Virginia Beach Dr., Miami, FL 33149]

87-000453 Parrish, D. L.; T. D. Forsythe and T. J. Timmons. GROWTH AND CONDITION COMPARISONS OF WHITE CRAPPIE IN TWO SIMILAR LARGE RESERVOIRS. *J. Tenn. Acad. Sci.* 61(4):92-95. 1986. FR 32(1)
[Ohio Coop. Fish. Res. Unit, 1735 Neil Ave., Columbus, OH 43210]

87-000454 Penczak, T. EFFECTS OF INTENSIVE FISHING ON FISH POPULATION PARAMETERS. *Prog. IV Int. Congr. Ecol.* p. 269-270. 1986. Abstract only. FR 32(1)
[Univ. Lodz, 90-237 Lodz, Poland]

87-000455 Pennington, M. SOME STATISTICAL TECHNIQUES FOR ESTIMATING ABUNDANCE INDICES FROM TRAWL SURVEYS. *NOAA Fish. Bull.* 84(3):519-525. 1986. FR 32(1)
[NMFS, Woods Hole, MA 02543]

87-000456 Ryan, P. M. PREDICTION OF ANGLER SUCCESS IN AN ATLANTIC SALMON, *SALMO SALAR*, FISHERY TWO FISHING SEASONS IN ADVANCE. *Can. J. Fish. Aquatic Sci.* 43(12):2531-2534. 1986. In English with French summ. FR 32(1)
[Fish. Res. Br., P.O. Box 5667, St. John's, NF A1C 5X1, Canada]

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC. (CONTINUED)

87-000457 Sale, P. F. THE INFLUENCE OF VARIABLE RECRUITMENT AND POST-RECRUITMENT INTERACTIONS IN DETERMINING THE STRUCTURE OF FISH COMMUNITIES IN CORAL REEFS. *Prog. IV Int. Congr. Ecol.* p. 297. 1986. Abstract only. FR 32(1)
[Univ. Sydney, Sydney, N.S.W. 2006, Australia]

87-000458 Siler, J. R. COMPARISON OF ROTENONE AND TRAWLING METHODOLOGY FOR ESTIMATING THREADFIN SHAD POPULATIONS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 73-78. 1986. FR 32(1)
[Duke Power Co., Rt. 4, Box 531, Huntersville, NC 28078]

87-000459 Sissenwine, M. P. WHY DO FISH POPULATIONS VARY? *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 59-94. 1984. FR 32(1)
[NMFS, Northeast Fish Cent., Woods Hole Lab., Woods Hole, MA 02543]

87-000460 Stier, K. and B. Kynard. ABUNDANCE, SIZE, AND SEX RATIO OF ADULT SEA-RUN SEA LAMPREYS, *PETROMYZON MARINUS*, IN THE CONNECTICUT RIVER. *NOAA Fish. Bull.* 84(2):476-480. 1986. FR 32(1)
[Mass. Coop. Fish. Res. Unit, 204 Holdworth Hall, Univ. Mass., Amherst 01003]

87-000461 Sykes, S. D. and L. W. Botsford. CHINOOK SALMON, *ONCORHYNCHUS TSHAWYTSCHA*, SPAWNING ESCAPEMENT BASED ON MULTIPLE MARK-RECAPTURE OF CARCASSES. *NOAA Fish. Bull.* 84(2):261-270. 1986. FR 32(1)
[Dep. Wildl. Fish. Biol., Univ. Calif., Davis 95616]

87-000462 Whitelaw, A. W. and K. J. Sainsbury. TAG LOSS AND MORTALITY RATES OF A SMALL TROPICAL DEMERSAL FISH SPECIES, *LUTJANUS CARPONOTATUS* (PISCES: LUTJANIDAE), TAGGED WITH DART AND ANCHOR TAGS. *Aust. J. Mar. Freshwater Res.* 37(3):323-327. 1986. FR 32(1)
[Div. Fish. Res., CSIRO Mar. Lab., G.P.O. Box 1538, Hobart, Tas. 7001, Australia]

87-000463 Wilkins, M. E. DEVELOPMENT AND EVALUATION OF METHODOLOGIES FOR ASSESSING AND MONITORING THE ABUNDANCE OF WIDOW ROCKFISH, *SEBASTES ENTOMELAS*. *NOAA Fish. Bull.* 84(2):287-310. 1986. FR 32(1)
[NMFS, 7600 Sand Point Way N.E., Bldg. 4, BIN C15700, Seattle, WA 98115]

87-000464 Willis, D. W. FACTORS AFFECTING GIZZARD SHAD REPRODUCTION IN KANSAS RESERVOIRS. *Kans. Fish. I&D* No. 86-3. 11p. 1986. FR 32(1)
[Kans. Fish Game Comm., P.O. Box 1525, Emporia 66801]

87-000465 Zander, C. D. and T. Hagemann. FLUCTUATIONS OF PREY, ABUNDANCE AND BIOMASS OF GOBIES (GOBIIDAE, PISCES) IN SHALLOW HABITAT OF THE WESTERN BALTIC SEA. *Zool. Anz.* 216(5-6):298-304. 1986. FR 32(1)
[Zool. Inst., Univ. Hamburg, West Germany]

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC.

87-000466 Badcock, J. ASPECTS OF THE REPRODUCTIVE BIOLOGY OF *GONOSTOMA BATHYPHILUM* (GONOSTOMATIDAE). *J. Fish Biol.* 29(5):589-603. 1986. FR 32(1)
[Inst. Oceanogr. Sci., Wormley, Godalming, Surrey GU8 5UB, England]

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC. (CONTINUED)

87-000467 Berglund, A.; G. Rosenqvist and I. Svensson. MATE CHOICE, FECUNDITY AND SEXUAL DIMORPHISM IN TWO PIPEFISH SPECIES (SYNGNATHIDAE). *Behav. Ecol. Sociobiol.* 19(4):301-307. 1986. FR 32(1)
[Dep. Zool., Uppsala Univ., Box 561, S-751 22 Uppsala, Sweden]

87-000468 Burdick, B. D. and L. R. Kaeding. REPRODUCTIVE ECOLOGY OF THE HUMPBACK CHUB AND THE ROUNDTAIL CHUB IN THE UPPER COLORADO RIVER. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:163. 1985. Abstract only. FR 32(1)
[U.S. FWS, 551 25½ Rd., Suite B113, Grand Junction, CO 81505]

87-000469 Carscadden, J. E.; G. H. Winters and D. S. Miller. AN INDIRECT METHOD OF ESTIMATING MATURATION RATES OF COHORTS OF CAPELIN *(MALLOTUS VILLOSUS)*. *J. Northwest Atl. Fish. Sci.* 6(2):135-140. 1985. FR 32(1)
[Dep. Fish. Oceans, P.O. Box 5667, St. John's, NF A1C 5X1, Canada]

87-000470 Chebanov, N. A. FACTORS CONTROLLING SPAWNING SUCCESS IN PINK SALMON, *ONCORHYNCHUS GORBUSCHA*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):69-78. 1986. FR 32(1)
[Kamchatka Br., Pac. Mar. Fish. Oceanogr. Res. Inst., Petropavlovsk-Kamchatskiy, USSR]

87-000471 Dodson, J. J.: Y. Lambert and L. Bernatchez. COMPARATIVE MIGRATORY AND REPRODUCTIVE STRATEGIES OF THE SYMPATRIC ANADROMOUS COREGONINE SPECIES OF JAMES BAY. *Contrib. Mar. Sci.* 27(Suppl.):296-315. 1985. FR 32(1)
[Dep. Biol., Univ. Laval, PQ G1K 7P4, Canada]

87-000472 Hawkins, A. D. and G. W. Smith. RADIO-TRACKING OBSERVATIONS ON ATLANTIC SALMON ASCENDING THE ABERDEENSHIRE DEE. *Scott. Fish. Res. Rep.* No. 36. 24p. 1986. FR 32(1)
[Mar. Lab., Aberdeen, Scotland]

87-000473 Heinrich, W. and J. H. Schroder. CAN MALES OF *POECILIA RETICULATA* (PISCES: POECILIIDAE) DISCRIMINATE BETWEEN FEMALES OF DIFFERENT GENETIC QUALITY OR DIFFERENT RESIDENT TIME? *Biol. Zentralbl.* 105(5):491-502. 1986. IN English with German summ. FR 32(1)
[J.H. Schroder: Inst. Biol., Gesellschaft Slatlenund Umweltforsch., Ingolstadter Landstr. 1, D-8042 Neuberberg m. Munchen, West Germany]

87-000474 Hsiao, S. and A. H. Meier. SPAWNING CYCLES OF THE GULF KILLFISH, *FUNDULUS GRANDIS*, IN CLOSED CIRCULATION SYSTEMS. *J. Exp. Zool.* 240(1):105-112. 1986. FR 32(1)
[Dep. Zool. Physiol., La. State Univ., Baton Rouge 70803]

87-000475 Jensen, A. J.; T. G. Heggberget and B. O. Johnsen. UPSTREAM MIGRATION OF ADULT ATLANTIC SALMON, *SALMO SALAR* L., IN THE RIVER VEFSNA, NORTHERN NORWAY. *J. Fish Biol.* 29(4):459-465. 1986. FR 32(1)
[Dir. Nat. Manage., Tungasletta 2, N-7000 Trondheim, Norway]

87-000476 Kelly, K. H. and D. K. Stevenson. FECUNDITY OF ATLANTIC HERRING *(CLUPEA HARENGUS)* FROM THREE SPAWNING AREAS IN THE WESTERN GULF OF MAINE, 1969 AND 1982. *J. Northwest. Atl. Fish. Sci.* 6(2):149-155. 1985. FR 32(1)
[Maine Dep. Mar. Resour., Fish. Res. Lab., West Boothbay Harbor 04575]

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC. (CONTINUED)

87-000477 Leggett, W. C. THE ROLE OF MIGRATIONS IN THE LIFE HISTORY EVOLUTION OF FISH. *Contrib. Mar. Sci.* 27(Suppl.):277-295. 1985. FR 32(1)
[Dep. Biol., McGill Univ., 1205 Ave. Dr. Penfield, Montreal, PQ, H3A 1B1 Canada]

87-000478 Manconato, A. and A. Bisazza. MALES WHOSE NESTS CONTAIN EGGS ARE PREFERRED BY FEMALE *COTTUS GOBIO* L. (PISCES, COTTIDAE). *Anim. Behav.* 34(5):1580-1582. 1986. FR 32(1)
[Dip. Biol., Univ. Padova, via Loredon 10, Padova, Italy]

87-000479 Martin, R. F. SPAWNING BEHAVIOR OF THE GRAY REDHORSE, *MOXOSTOMA CONGESTUM* (PISCES: CATOSTOMIDAE) IN CENTRAL TEXAS. *Southwest. Nat.* 31(3):399-401. 1986. FR 32(1)
[Tex. Mem. Mus., Univ. Tex., Austin 78705]

87-000480 Parrish, R. H.; D. L. Mallicoate and R. A. Klingbeil. AGE DEPENDENT FECUNDITY, NUMBER OF SPAWNINGS PER YEAR, SEX RATIO, AND MATURATION STAGES IN NORTHERN ANCHOVY, *ENGRAULIS MORDAX*. *NOAA Fish. Bull.* 84(3):503-517. 1986. FR 32(1)
[NMFS, P.O. Box 831, Monterey, CA 93942]

87-000481 Patzner, R. A.; M. Seiwald; M. Adlgasser and G. Kaurin. THE REPRODUCTION OF *BLENNIUS PAVO*. V. REPRODUCTIVE BEHAVIOR IN NATURAL ENVIRONMENT. *Zool. Anz.* 216(5-6):338-350. 1986. FR 32(1)
[Zool. Inst., Univ. Salzburg, Austria]

87-000482 Schenck, R. A. and R. C. Vrijenhoek. SPATIAL AND TEMPORAL FACTORS AFFECTING COEXISTENCE AMONG SEXUAL AND CLONAL FORMS OF *POECILIOPSIS*. *Evolution* 40(5):1060-1070. 1986. FR 32(1)
[R. C. Vrijenhoek: Bur. Biol. Res., P.O. Box 1059, Piscataway, NJ 08854]

87-000483 Semple, G. P. REPRODUCTIVE BEHAVIOUR AND EARLY DEVELOPMENT OF THE DRYSDALE HARDYHEAD, *CRATEROCEPHALUS* SP. NOV. (PISCES: ATHERINIDAE), FROM THE ALLIGATOR RIVERS SYSTEM, NORTHERN TERRITORY, AUSTRALIA. *J. Fish Biol.* 29(4):499-506. 1986. FR 32(1)
[36 Malvern Ave., Merrylands, NSW 2160, Australia]

87-000484 Shershnev, A. P.; V. A. Belobrzheskiy and V. A. Rudnev. POPULATION STRUCTURE AND SPAWNING MIGRATION OF ANADROMOUS ARCTIC CHAR, *SALVELINUS ALPINUS*, OF THE MELKAYA RIVER, NORHTEASTERN SAKHALIN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):79-85. 1986. FR 32(1)
[SakhTINRO, South-Sakhalinsk, USSR]

87-000485 Shpigel, M. and L. Fishelson. BEHAVIOR AND PHYSIOLOGY OF COEXISTENCE IN TWO SPECIES OF *DASCYLLUS* (POMACENTRIDAE, TELEOSTEI). *Environ. Biol. Fishes* 17(4):253-265. 1986. FR 32(1)
[Dep. Zool., Geo. S. Wise Fac. Life Sci., Tel Aviv Univ., Tel Aviv 69978, Israel]

87-000486 Stier, K. and B. Kynard. MOVEMENT OF THE SEA-RUN SEA LAMPREYS, *PETROMYZON MARINUS*, DURING THE SPAWNING MIGRATION IN THE CONNECTICUT RIVER. *NOAA Fish. Bull.* 84(3):749-753. 1986. FR 32(1)
[Mass. Coop. Fish. Res. Unit, Univ. Mass., 204 Holdsworth Hall, Amherst 01003]

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC. (CONTINUED)

87-000487 Tanaka, M.; K. Nashida and T. Minami. [SPAWNING OF ATKA MACKEREL, *PLEUROGRAMMUS AZONUS* IN THE AREA SURROUNDING SADO ISLAND.] *Bull. Jpn. Sea Reg. Fish. Res. Lab.* No. 36. p. 29-38. 1986. In Japanese with English summ. FR 32(1)
[Jpn. Sea Reg. Fish. Res. Lab., Suido-cho, Niigata 951, Japan]

87-000488 Turner, G. F. TERRITORY DYNAMICS AND COST OF REPRODUCTION IN A CAPTIVE POPULATION OF THE COLONIAL NESTING MOUTHBROODER *OREOCHROMIS MOSSAMBICUS* (PETERS). *J. Fish Biol.* 29(5):573-587. 1986. FR 32(1)
[Sch. Anim. Biol., Univ. Coll., North Wales, Bangor, Gwynedd LL57 2UW, Wales]

87-000489 Veshchev, P. V. and A. S. Novikova. ANALYSIS OF THE SPAWNING RUN OF OSETR, *ACIPENSER GUELDENSTAEDTI*, IN THE VOLGA RIVER. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):86-96. 1986. FR 32(1)
[TsNIORKh, Astrakhan, USSR]

87-000490 Wu, P.; H. Wu and J. Yang. THE CHARACTERISTICS OF REPRODUCTIVE ECOLOGY OF FISHES IN JAIOZHOU BAY IN HUANGHAI SEA. *Prog. IV Int. Congr. Ecol.* p. 359. 1986. Abstract only. FR 32(1)
[Acad. Sin., Tsingtao, Sangtung, China]

MOVEMENTS, SEASONAL AND DEPTH DISTRIBUTION, ETC.

87-000491 Avise, J. C. and D. Y. Shapiro. EVALUATING KINSHIP OF SETTLED JUVENILES WITHIN SOCIAL GROUPS OF THE CORAL REEF FISH *ANTHIAS SQUAMIPINNIS*. *Evolution* 40(5):1051-1059. 1986. FR 32(1)
[Dep. Genet., Unit. Ga., Athens 30602]

87-000492 Brill, R. W.; K. N. Holland and J. S. Ferguson. USE OF ULTRASONIC TELEMETRY TO DETERMINE THE SHORT-TERM MOVEMENTS AND RESIDENCE TIMES OF TUNAS AROUND FISH AGGREGATING DEVICES. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM1/1-MRM1/7. 1984. FR 32(1)
[NMFS, Honolulu, HI]

87-000493 Falk-Petersen, I.; V. Frivoll; B. Gulliksen and T. Haug. OCCURRENCE AND SIZE/AGE RELATIONS OF POLAR COD, *BOREOGADUS SAIDA* (LEPECHIN), IN SPITSBERGEN COASTAL WATERS. *Sarsia* 71(3-4):235-245. 1986. FR 32(1)
[Inst. Fish., Univ. Tromso, P.O. Box 3083 Guleng, N-9011 Tromso, Norway]

87-000494 Gascuel, D. FLOW-CARRIED AND ACTIVE SWIMMING MIGRATION OF THE GLASS EEL *(ANGUILLA ANGUILLA)* IN THE TIDAL AREA OF A SMALL ESTUARY ON THE FRENCH ATLANTIC COAST. *Helgo. Meeresunters.* 40(3):321-326. 1986. FR 32(1)
[Lab. Biol. Halieutigue l'ENSAR-ERA/IFREMER, 65 route de St. Brieuc, 35042 Rennes Cedex, France]

87-000495 Gusar, A. G. and A. I. P'yanov. DISTRIBUTION OF BREAM, *ABRAMIS BRAMA*, OF VOTKINSK RESERVOIR DURING THE FEEDING PERIOD. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):57-68. 1986. FR 32(1)
[IEMEZH, Moscow, USSR]

MOVEMENTS, SEASONAL AND DEPTH DISTRIBUTION, ETC. (CONTINUED)

87-000496 Hesthagen, T. and E. Garnas. MIGRATION OF ATLANTIC SALMON SMOLTS IN RIVER ORKLA OF CENTRAL NORWAY IN RELATION TO MANAGEMENT OF A HYDROELECTRIC STATION. *N. Am. J. Fish. Manage.* 6(3):376-382. 1986. FR 32(1)
[Dir. Nat. Manage., Tungasletta 2, N-7000 Trondheim, Norway]

87-000497 Hop, H. WINTER TELEMETRY STUDY OF ARCTIC GRAYLING *THYMALLUS ARCTICUS* (PALLAS) IN THE ARCTIC NATIONAL WILDLIFE REFUGE, ALASKA. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:224-231. 1985. FR 32(1)
[Alaska Coop. Fish Res. Unit, Univ. Alaska, Fairbanks 99701]

87-000498 Hvidsten, N. A. YIELD OF SILVER EEL AND FACTORS EFFECTING DOWNSTREAM MIGRATION IN THE STREAM IMSA, NORWAY. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 75-85. 1985. FR 32(1)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7000 Trondheim, Norway]

87-000499 Hvidsten, N. A. ASCENT OF ELVERS (*ANGUILLA ANGUILLA* L.) IN THE STREAM IMSA, NORWAY. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 71-74. 1985. FR 32(1)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7000 Trondheim, Norway]

87-000500 McCleave, J. D. and R. C. Kleckner. OCEANIC MIGRATIONS OF ATLANTIC EELS (*ANGUILLA* SPP.): ADULTS AND THEIR OFFSPRING. *Contrib. Mar. Sci.* 27(Suppl.):316-337. 1985. FR 32(1)
[Dep. Zool., Univ. Maine, Orono 04469]

87-000501 Power, J. H. A MODEL OF THE DRIFT OF NORTHERN ANCHOVY, *ENGRAULIS MORDAX*, LARVAE IN THE CALIFORNIA CURRENT. *NOAA Fish. Bull.* 84(3):585-603. 1986. FR 32(1)
[Cent. Wetlands Resour., La. State Univ., Baton Rouge, LA 70803-7503]

87-000502 Sandlund, O. T.; T. F. Naesje; L. Klyve and T. Lindem. THE VERTICAL DISTRIBUTION OF FISH SPECIES IN LAKE MJOSA, NORWAY, AS SHOWN BY GILL-NET CATCHES AND ECHO SOUNDER. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 136-149. 1985. FR 32(1)
[Royal Norwegian Soc. Rural Dev., Box 115, N-2013 Skjetten, Norway]

87-000503 Valdez, R. A.; J. G. Carter and R. J. Ryel. DRIFT OF LARVAL FISHES IN THE UPPER COLORADO RIVER. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:171-185. 1985. FR 32(1)
[Ecosyst. Res. Inst., Logan, UT 84321]

87-000504 Vollestad, L. A.; B. Jonsson; N. A. Hvidsten; T. F. Naesje; O. Haraldstad and J. Ruud-Hansen. ENVIRONMENTAL FACTORS REGULATING THE SEAWARD MIGRATION OF EUROPEAN SILVER EELS *(ANGUILLA ANGUILLA). Can. J. Fish. Aquatic Sci.* 43(10):1909-1916. 1986. In English with French summ. FR 32(1)
[Ostfold Cty., Environ. Admin., P.O. Box 325, N-1501 Moss, Norway]

FOODS/FEEDING

87-000505 Bath, D. W. and J. M. O'Conner. FOOD PREFERENCES OF WHITE PERCH IN THE HUDSON RIVER ESTRARY. *N.Y. Fish Game J.* 32(1):63-70. 1985. FR 32(1)
[N.Y. Univ. Med. Cent., A.J. Lanza Lab., Tuxedo 10987]

FOODS/FEEDING (CONTINUED)

87-000506 Belova, L. N. LONG-TERM FEEDING CHANGES OF VOBLA, *RUTILUS RUTILUS CASPICUS*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3): 50-56. 1986. FR 32(1)
[KaspNIIRKH, Astrakhan, USSR]

87-000507 Bitterlich, G. and E. Schaber. BACTERIA - FOOD OR FOOD COMPETITORS OF SILVER CARP, *HYPOPHTHALMICHTHYS MOLITRIX* VAL.? *J. Fish Biol.* 29(5):605-612. 1986. FR 32(1)
[Inst. Zool., Abt. Zoophysiol., Univ. Innsbruck, Technikerstr. 25, A-6020 Innsbruck, Austria]

87-000508 Brandt, S. B. FOOD OF TROUT AND SALMON IN LAKE ONTARIO. *J. Great Lakes Res.* 12(3):200-205. 1986. FR 32(1)
[State Univ. N.Y., Coll. Environ. Sci. For., Illick Hall, Syracuse 13210]

87-000509 Burcham, J. K. FISH COMMUNITIES AND ENVIRONMENTAL CHARACTERISTICS OF TWO LOWLAND STREAMS IN COSTA RICA. *Prog. IV Int. Congr. Ecol.* p. 105. 1986. Abstract only. FR 32(1)
[Tex. A&M Univ., College Station, TX 77840]

87-000510 Cada, G. F.; J. M. Loar and D. K. Cox. FEEDING PREFERENCES OF RAINBOW AND BROWN TROUT IN SOUTHERN APPALACHIAN SOFTWATER STREAMS. *Prog. IV Int. Congr. Ecol.* p. 107-108. 1986. Abstract only. FR 32(1)
[Oak Ridge Natl. Lab., Oak Ridge, TN 37831]

87-000511 Carter, J. C. H. and K. A. Goudie. DIEL VERTICAL MIGRATIONS AND HORIZONTAL DISTRIBUTIONS OF *LIMNOCALANUS MACRURUS* AND *SENECELLA CALANOIDES* (COPEPODA, CALANOIDA) IN LAKES OF SOUTHERN ONTARIO IN RELATION TO PLANKTIVOROUS FISH *Can. J. Fish. Aquatic Sci.* 43(12):1508-2514. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Univ. Waterloo, Waterloo, ON N2L 3G1, Canada]

87-000512 Chumakov, A. K. and S. G. Podrazhanskaya. FEEDING OF GREENLAND HALIBUT *(REINHARDTIUS HIPPOGLOSSOIDES)* IN THE NORTHWEST ATLANTIC. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 10. p. 47-52. 1986. FR 32(1)
[PINRO, 6 Knipovich St., Murmansk, USSR]

87-000513 Cohn, S. L. and P. H. Crowley. EFFECTS OF FISH AND COMPETITORS ON LARVAL BEHAVIOR IN THE DAMSELFLY, *ISCHNURA VERTICALIS* (SAY). *Prog. IV Int. Congr. Ecol.* p. 117. 1986. Abstract only. FR 32(1)
[Univ. Ky., Lexington 40506]

87-000514 Cryer, M.; G. Peirson and C. R. Townsend. RECIPROCAL INTERACTIONS BETWEEN ROACH, *RUTILUS RUTILUS*, AND ZOOPLANKTON IN A SMALL LAKE: PREY DYNAMICS AND FISH GROWTH AND RECRUITMENT. *Limnol. Oceanogr.* 31(5):1022-1038. 1986. FR 32(1)
[Tangariro Hatchery, P.B., Turangi, New Zealand]

87-000515 Culp, J. M. EXPERIMENTAL EVIDENCE THAT STREAM MACROINVERTEBRATE COMMUNITY STRUCTURE IS UNAFFECTED BY DIFFERENT DENSITIES OF COHO SALMON FRY. *J. North Am. Benthol. Soc.* 5(2):140-149. 1986. FR 32(1)
[Dep. Ecol., Univ. Calgary, Calgary, AB T2N 1N4, Canada]

FOODS/FEEDING (CONTINUED)

87-000516 DeVries, D. R.; R. A. Stein and P. L. Chesson. FORAGING IN PATCHES BY BLUEGILLS: A TEST OF AN OPTIMAL GIVING-UP TIME MODEL. *Prog. IV Int. Congr. Ecol.* p. 133. 1986. Abstract only. FR 32(1)
[Ohio State Univ., Columbus 43210]

87-000517 Drenner, R. W.; S. T. Threlkeld and M. D. McCracken. EXPERIMENTAL ANALYSIS OF THE DIRECT AND INDIRECT EFFECTS OF AN OMNIVOROUS FILTER-FEEDING CLUPEID ON PLANKTON COMMUNITY STRUCTURE. *Can. J. Fish. Aquatic. Sci.* 43(10):1935-1945. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Tex. Christian Univ., Fort Worth, TX 76129]

87-000518 Drenner, R. W.; G. L. Vinyard; M. Gophen; U. Pollinger and K. D. Hambright. SIZE-SELECTIVE PARTICLE GRAZING BY A FILTER-FEEDING CICHLID: EFFECTS OF SURGICAL REMOVAL OF GILL RAKERS AND MICROBRANCHIOSPINES. *Prog. IV Int. Congr. Ecol.* p. 136. 1986. Abstract only. FR 32(1)
[Texas Christian Univ., Fort Worth, TX 76129]

87-000519 Duhamel, G. and J. C. Hureau. THE ROLE OF ZOOPLANKTON IN THE DIETS OF CERTAIN SUB-ANTARCTIC MARINE FISH. *In: W. R. Siegfried, P. R. Condy, and R. M. Laws, (eds.). Antarctic Nutrient Cycles and Food Webs. Springer-Verlag. 1984.* p. 421-429. FR 32(1)
[Lab. Ichtyol. Gen. Appl., Mus. Natl. Hist. Nat., 43 rue Cuvier, F-75231 Paris, Cedex 05, France]

87-000520 Eccles, D. H. DIET OF THE CYPRINID FISH *BARBUS AENEUS* (BURCHELL) IN THE P.K. LE ROUX DAM, SOUTH AFRICA, WITH SPECIAL REFERENCE TO THE EFFECT OF TURBIDITY ON ZOOPLANKTIVORY. *S. Afr. J. Zool.* 21(3)257-263. 1986. In English with Afrikaans summ. FR 32(1)
[Dir. Fish. Res., Lowestoft, NR 32 4HT, U.K.]

87-000521 Elmore, J. L.; D. S. Vodopich and J. J. Hoover. SELECTIVE PREDATION BY BLUEGILL SUNFISH *(LEPOMIS MACROCHIRUS)* ON THREE SPECIES OF *DIAPTOMUS* (COPEPODA) FROM SUBTROPICAL FLORIDA. *J. Freshwater Ecol.* 2(2):183-192. 1983. FR 32(1)

87-000522 Filipek, S. P. and W. H. Tommey. THE FOOD HABITS OF ADULT STRIPED BASS FROM LAKE HAMILTON, ARKANSAS, BEFORE AND DURING AN EXTREME DRAWDOWN. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:327-334. 1984. FR 32(1)
[Fish. Div., Ark. Game Fish Comm., Rt. 1, Box 477, Hot Springs 71901]

87-000523 Garratt, P. A. THE OFFSHORE LINEFISHERY OF NATAL: III: FOOD AND FEEDING OF THE SPARIDS *CHRYSOBLEPHUS PUNICEUS* AND *CHEIMERIUS NUFAR*. *S. Afr. Assoc. Mar. Biol. Res.* No. 64. 17p. 1986. FR 32(1)

87-000524 Godin, J. J. RISK OF PREDATION AND FORAGING BEHAVIOR IN SHOALING BANDED KILLIFISH (*FUNDULUS DIAPHANUS*). *Can. J. Zool.* 64(8):1675-1678. 1986. In English with French summ. FR 32(1)
[Dep. Biol., Mount Allison Univ., Sackville, NB EOA 3C0, Canada]

87-000525 Hardin, S.; R. Land; M. Spelman and G. Morse. FOOD ITEMS OF GRASS CARP, AMERCIAN COOTS, AND RING-NECKED DUCKS FORM A CENTRAL FLORIDA LAKE. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies*

FOODS/FEEDING (CONTINUED)

87-000525 CONTINUED 38:313-318. 1984. FR 32(1)
[Div. Fish., Fla. Game Fresh Water Fish Comm., Tallahassee, FL 32301]

87-000526 Hobson, E. S. and J. R. Chess. RELATIONSHIPS AMONG FISHES AND THEIR PREY IN A NEARSHORE SAND COMMUNITY OFF SOUTHERN CALIFORNIA. *Environ. Biol. Fishes* 17(3):201-226. 1986. FR 32(1)
[NMFS, 3150 Paradise Dr., Tiburon, CA 94920]

87-000527 Hoff, M. H. FOOD HABITS OF THE 1980 COHORT OF LARGEMOUTH BASS IN SPRUCE LAKE, 1981-1982. *Wis. Dep. Nat. Resour. Res. Rep.* 138. 14p. 1986. FR 32(1)
[Wis. Dep. Nat. Resour., Bur. Res., Woodruff]

87-000528 Jobling, M. and A. Breiby. THE USE AND ABUSE OF FISH OTOLITHS IN STUDIES OF FEEDING HABITS OF MARINE PISCIVORES. *Sarsia* 71(3-4):265-274. 1986. FR 32(1)
[Inst. Fiskerifag, Univ. Tromso, P.O. Box 3083 Guleng, N-9001 Tromso, Norway]

87-000529 Kasprzak, R. A. and V. Guillory. FOOD HABITS OF SAND SEATROUT IN BARATARIA BAY, LOUISIANA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:480-487. 1984. FR 32(1)
[La. Dep. Wildl. Fish., P.O. Box 37, Grand Isle 70358]

87-000530 Kenoplya, L. A.; V. Y. Pushkar and E. A. Solovyova. THE INFLUENCE OF YOUNG CARP (*CYPRINUS CARPIO* L.) ON ALGA NUMBER AND PRODUCTION UNDER EXPERIMENTAL CONDITIONS. *Biol. Nauki (Mosc.)* 7(271):80-83. 1986. In Russian with English summ. FR 32(1)

87-000531 Kim, C. K. and Y. J. Kang. DIETS OF THE ROCK TROUT, *AGRAMMUS AGRAMMUS*, IN THE SHORE AREA OF TONGBAEKSOM, PUSAN. *Bull. Korean Fish. Soc.* 19(5):411-422. 1986. FR 32(1)
[Dep. Mar. Biol., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000532 Knapp, S. M. and R. A. Soltero. TROUT-ZOOPLANKTON RELATIONSHIPS IN MEDICAL LAKE, WA FOLLOWING RESTORATION BY ALUMINUM SULFATE TREATMENT. *J. Freshwater Ecol.* 2(1):1-12. 1983. FR 32(1)

87-000533 Kock, K. H. KRILL CONSUMPTION BY ANTARCTIC NOTOTHENIOID FISH. *In: W. R. Siegfried, P. R. Condy, and R. M. Laws, (eds.). Antarctic Nutrient Cycles and Food Webs. Springer-Verlag. 1984.* p. 437-444. FR 32(1)
[Inst. Seefisch., Palmaille 9, D-2000 Hamburg 50, West Germany]

87-000534 Koshiishi, Y. EFFECT OF SALINITY ON FOOD INTAKE, GROWTH AND FEED EFFICIENCY OF CHUM SALMON, *ONCORHYNCHUS KETA* (WALBAUM), AND AYU, *PLECOGLOSSUS ALTIVELIS* TEMMINCK ET SCHLEGEL. *Bull. Jpn. Sea Reg. Fish. Res. Lab.* No. 36. p. 1-14. 1986. FR 32(1)
[Jpn. Sea Reg. Fish. Res. Lab., Suido-cho, Niigata 951, Japan]

87-000535 Koshiishi, Y. EFFECT OF FEEDING LEVEL AND DIETARY COMPOSITION ON GROWTH AND FEED EFFICIENCY OF CHUM SALMON, *ONCORHYNCHUS KETA* (WALBAUM), FED IN SEAWATER AND FRESHWATER. *Bull. Jpn. Sea Reg. Fish. Res.*

FOODS/FEEDING (CONTINUED)

87-000535 CONTINUED *Lab.* No. 36. p. 15-27. 1986. FR 32(1)
[Jpn. Sea Reg. Fish. Res. Lab., Suido-cho, Niigata 951, Japan]

87-000536 Lauder, G. V. AQUATIC PREY CAPTURE IN FISHES: EXPERIMENTAL AND THEORETICAL APPROACHES. *J. Exp. Biol.* 125:411-416. 1986. FR 32(1)
[Dep. Dev. Cell Biol., Univ. Calif., Irvine 92717]

87-000537 Leaute, J. [APPROACH OF THE DIET OF JUVENILES OF SEA BASS AND COMMON DAB, IN BAY OF SOMME (FRANCE).] *Rev. Trav. Inst. Peches Marit.* 48(1-2):55-63. 1984. In French with English summ. FR 32(1)
[IFREMER, L'Houmeau, B.P. 7, 17137 Nieul-sur-Mer, France]

87-000538 Matthews, W. J.; M. E. Power and A. J. Stewart. DEPTH DISTRIBUTION OF *CAMPOSTOMA* GRAZING SCARS IN AN OZARK STREAM. *Environ. Biol. Fishes* 17(4):291-297. 1986. FR 32(1)
[Univ. Okla. Biol. Stn., Kingston 73439]

87-000539 Mazumder, K.; S. Dewan and A. L. Sarker. SEASONAL FOOD AND FEEDING HABITS OF THE CYPRINID FISH, *CIRRHINA REBA* (HAM.) IN A BANGLADESH POND. *Bangladesh J. Sci. Indus. Res.* 19(1-4):75-83. 1984. FR 32(1)
[Dep. Aquicult. Manage., Fac. Fish., Bangladesh Agric. Univ., Mymensingh, Bangladesh]

87-000540 McIntyre, S. C., Jr. FLOCCULATED ALGAE, A POTENTIALLY IMPORTANT FOOD SOURCE FOR FILTER FEEDING FISH. *J. Freshwater Ecol.* 2(2):193-199. 1983. FR 32(1)

87-000541 Minami, T. [PREDATIONS ON THE YOUNG FLATFISHES IN THE JAPAN SEA.] *Bull. Jpn. Sea Reg. Fish. Res. Lab.* No. 36. p. 39-47. 1986. In Japanese with English summ. FR 32(1)
[Jpn. Sea Reg. Fish. Res. Lab., Suido-cho, Niigata 951, Japan]

87-000542 Mitzner, L. R. UTILIZATION OF THE FORAGE FISH POPULATION BY PREDATORS AT LAKE RATHBUN, IOWA. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 312. 1986. Abstract only. FR 32(1)
[Iowa Conserv. Comm., RR 1, Box 209, Chariton 50049]

87-000543 Mojcik, J. A.; M. S. Evans and D. J. Jude. FOOD OF DEEPWATER SCULPIN, *MYOXOCEPHALUS THOMPSONI*, FROM SOUTHEASTERN LAKE MICHIGAN. *J. Great Lakes Res.* 12(3):225-231. 1986. FR 32(1)
[Great Lakes Res. Div., Univ. Mich., Ann Arbor 48109]

87-000544 Nijaguna, G. M.; S. Ravichandra Reddy and K. Shakuntala. COMBINED EFFECTS OF FEEDING FREQUENCY AND POPULATION DENSITY ON THE FOOD UTILIZATION OF *POECILIA RETICULATA* (PETERS). *Pol. Arch. Hydrobiol.* 33(2):221-228. 1986. FR 32(1)
[Dep. Zool., Bangalore Univ., Jnana Bharati, Bangalore 560056, India]

87-000545 O'Brien, W. J.; B. I. Evans and G. L. Howick. A NEW VIEW OF THE PREDATION CYCLE OF A PLANKTIVOROUS FISH, WHITE CRAPPIE *(POMOXIS ANNULARIS). Can. J. Fish. Aquatic Sci.* 43(10):1894-1899. 1986. In English with French

FOODS/FEEDING (CONTINUED)

87-000545 CONTINUED summ. FR 32(1)
[Dep. Syst. Ecol., Univ. Kans., Lawrence 66045]

87-000546 Olsen, K. H.; L. Karlsson and A. Helander. FOOD SEARCH BEHAVIOR IN ARCTIC CHARR, *SALVELINUS ALPINUS* (L.), INDUCED BY FOOD EXTRACTS AND AMINO ACIDS. *J. Chem. Ecol.* 12(10):1987-1998. 1986. FR 32(1)
[Dep. Zoophysiol., Uppsala Univ., Box 560, S-751 22, Uppsala, Sweden]

87-000547 Osmundson, D. B. and C. R. Berry, Jr. LARGEMOUTH BASS PREDATION ON STOCKED COLORADO SQUAWFISH. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:146. 1985. Abstract only. FR 32(1)
[Utah Coop. Fish Wildl. Res. Unit, Utah State Univ., Logan 84322]

87-000548 Paszkowski, C. A. FORAGING SITE USE AND INTERSPECIFIC COMPETITION BETWEEN BLUEGILLS AND GOLDEN SHINERS. *Environ. Biol. Fishes* 17(3):227-233. 1986. FR 32(1)
[Dep. Zool., Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-000549 Persson, L. TEMPERATURE-INDUCED SHIFT IN FORAGING ABILITY IN TWO FISH SPECIES, ROACH *(RUTILUS RUTILUS)* AND PERCH *(PERCA FLUVIATILIS)*: IMPLICATIONS FOR COEXISTENCE BETWEEN POIKILOTHERMS. *J. Anim. Ecol.* 55(3):829-839. 1986. FR 32(1)
[Fish Ecol. Res. Group, Dep. Ecol. Limnol., P.O. Box 65, S-221 00 Lund, Sweden]

87-000550 Raess, F. and E. J. Maly. THE SHORT-TERM EFFECTS OF PERCH PREDATION ON A ZOOPLANKTON PREY COMMUNITY. *Hydrobiologia* 140(2):155-160. 1986. FR 32(1)
[Biol. Dep., Concordia Univ., 1455 de Maisonneuve Blvd. W., Montreal, PQ H3G 1M8, Canada]

87-000551 Rahel, F. J. PREDATOR AVOIDANCE AND RESOURCE ENHANCEMENT AMONG FISH AND CRAYFISH. *Prog. IV Int. Congr. Ecol.* p. 279. 1986. Abstract only. FR 32(1)
[Univ. Wyo., Laramie 82071]

87-000552 Ringler, N. H. and D. F. Brodowski. FUNCTIONAL RESPONSES OF BROWN TROUT (*SALMO TRUTTA* L.) TO INVERTEBRATE DRIFT. *J. Freshwater Ecol.* 2(1):45-58. 1983. FR 32(1)

87-000553 Robertson, C. H. and R. W. G. White. FEEDING PATTERNS OF *NESOGOBIUS* SP., *GYMNOPISTES MARMORATUS*, *NEOODAX BALTEATUS* AND *ACANTHALUTERES SPILOMELANURUS* FROM A TASMANIAN SEAGRASS MEADOW. *Aust. J. Mar. Freshwater Res.* 37(4):481-489. 1986. FR 32(1)
[R.W.G. White: Fish Res. Group, Dep. Zool., Univ. Tasmania, Box 252C, G.P.O. Hobart, Tasmania 7001, Australia]

87-000554 Schleyer, M. H. and J. H. Wallace. STOMACH CONTENTS OF SOME SHORE-CAUGHT TELEOSTS OF NATAL, SOUTH AFRICA. *S. Afr. J. Zool.* 21(3):272-274. 1986. In English with Afrikaans summ. FR 32(1)
[Oceanogr. Res. Inst., P.O. Box 10712, Marine Parade, Durban 4056, South Africa]

FOODS/FEEDING (CONTINUED)

87-000555 Sibbing, F. A.; J. W. M. Osse and A. Terlouw. FOOD HANDLING IN THE CARP *(CYPRINUS CARPIO)*: ITS MOVEMENT PATTERNS, MECHANISMS AND LIMITATIONS. *J. Zool. (Lond.)* 210(2):161-203. 1986. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., Marijkeweg 40, 6709 PG Wageningen, Netherlands]

87-000556 Siegfried, W. R.; P. R. Condy and R. M. Laws, (eds.). ANTARCTIC NUTRIENT CYCLES AND FOOD WEBS. *Springer-Verlag* xiv+700p. 1984. A collection of papers.--RS. FR 32(1)
[Percy FitzPatrick Inst., Univ. Cape Town, Rondebosch 7700, South Africa]

87-000557 Sorensen, P. W.; M. L. Bianchini and H. E. Winn. DIEL FORAGING ACTIVITY OF AMERICAN EELS, *ANGUILLA ROSTRATA* (LESUEUR), IN A RHODE ISLAND ESTUARY. *NOAA Fish. Bull.* 84(3):746-747. 1986. FR 32(1)
[Zool. Dep., Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-000558 Tandler, A. and C. Mason. THE USE OF 14C-LABELLED ROTIFERS (*BRACHIONUS PLICATILIS*) IN THE LARVAE OF GILTHEAD SEABREAM (*SPARUS AURATA*): MEASUREMENTS OF THE EFFECT OF ROTIFER CONCENTRATION, THE LIGHTING REGIME AND SEABREAM LARVAL AGE ON THEIR RATE OF ROTIFER INGESTION. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 241-259. 1984. FR 32(1)
[Natl. Cent. Maricult., Israel Oceanogr. Limnol. Res., P.O.B. 1212, Eilat Israel]

87-000559 Thresher, R. E. FORAGING BEHAVIOR, DIETARY OVERLAP AND EVIDENCE FOR COMPETITION AMONG PLANKTIVOROUS REEF FISHES AT A STRONG CURRENT SITE AT ENEWETAK ATOLL. *Prog. IV Int. Congr. Ecol.* p. 331. 1986. Abstract only. FR 32(1)
[CSIRO Mar. Lab., Hobart, Tasmania 7001, Australia]

87-000560 Timmons, T. J. COMPARATIVE FOOD HABITS AND HABITAT PREFERENCE OF AGE-0 LARGEMOUTH BASS AND YELLOW PERCH IN WEST POINT LAKE, ALABAMA-GEORGIA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:302-312. 1984. FR 32(1)
[Hancock Biol. Stn., Dep. Biol. Sci., Murray State Univ., Murray, KY 42071]

87-000561 Wetterer, J. K. PREY SELECTION BY VISUALLY FORAGING PLANTIVOROUS FISH. *Prog. IV Int. Congr. Ecol.* p. 349. 1986. Abstract only. FR 32(1)
[Univ. Wash., Seattle 98195]

87-000562 Wiley, M. J.; S. M. Pescitelli and L. D. Wike. THE RELATIONSHIP BETWEEN FEEDING PREFERENCES AND CONSUMPTION RATES IN GRASS CARP AND GRASS CARP X BIGHEAD CARP HYBRIDS. *J. Fish Biol.* 29(4):507-514. 1986. FR 32(1)
[Ill. Nat. Hist. Surv., 607 E. Peabody, Champaign 61820]

87-000563 Williams, R. TROPHIC RELATIONSHIPS BETWEEN PELAGIC FISH AND EUPHAUSIIDS IN ANTARCTIC WATERS. *In: W. R. Siegfried, P. R. Condy, and R. M. Laws, (eds.). Antarctic Nutrient Cycles and Food Webs. Springer-Verlag. 1984.* p. 452-459. FR 32(1)
[Antarctic Div., Dep. Sci. Technol., Channel Highway, Kingston 7150, Tasmania, Australia]

87-000564 Yang, M. S. and P. A. Livingston. FOOD HABITS AND DIET OVERLAP OF TWO CONGENERIC SPECIES, *ATHERESTHES STOMIAS* AND *ATHERESTHES EVERMANNI*, IN THE EASTERN BERING SEA. *NOAA Fish. Bull.* 84(3):615-623.

FOODS/FEEDING (CONTINUED)

87-000564 CONTINUED 1986. FR 32(1)
[Fish. Res. Inst., Univ. Wash., WH-10, Seattle 98195]

AGE AND GROWTH

87-000565 Cassani, J. R. and W. E. Caton. GROWTH COMPARISONS OF DIPLOID AND TRIPLOID GRASS CARP UNDER VARYING CONDITIONS. *Prog. Fish-Cult.* 48(3):184-187. 1986. FR 32(1)
[Lee Cty. Hyacinth Control Dist., P.O. Box 06005, Fort Meyers, FL 33906]

87-000566 Collins, N. C. INTERFERENCE COMPETITION DOES NOT LIMIT GROWTH OF BLUEGILL *(LEPOMIS MACROCHIRUS)* IN LAKE OPINICON, ONTARIO. *Prog. IV Int. Congr. Ecol.* p. 118. 1986. Abstract only. FR 32(1)
[Univ. Toronto, Missisauga, ON L5L 1C6, Canada]

87-000567 Crumpton, J. E; M. M. Hale and D. J. Renfro. AGING OF THREE SPECIES OF FLORIDA CATFISH UTILIZING THREE PECTORAL SPINE SITES AND OTOLITHS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:335-341. 1984. FR 32(1)
[Fla. Game Fresh Water Fish Comm., Fish. Res. Lab., P.O. Box 1903, Eurtis 32727-1903]

87-000568 DuBuit, M. H. and F. Maheux. [AN AGE READING TECHNIC FOR RAYS.] *Rev. Trav. Inst. Peches Marit.* 48(1-2):85-88. 1984. In French with English summ. FR 32(1)
[C.N.R.S., Coll. France, Lab. Biol. Mar., 29110 Concarneau, France]

87-000569 Hansson, S. and L. Westin. A COMPARISON OF THE GROWTH OF PERCH (*PERCA FLUVIATILIS* L.) IN AN EUTROPHIED BAY AND A REFERENCE AREA IN NORTHERN BALTIC PROPER. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 57-59. 1985. FR 32(1)
[Asko Lab., Univ. Stockholm, S-106 91 Stockholm, Sweden]

87-000570 Heggberget, T. G.; R. A. Lund; N. Ryman and G. Stahl. GROWTH AND GENETIC VARIATION OF ATLANTIC SALMON *(SALMO SALAR)* FROM DIFFERENT SECTIONS OF THE RIVER ALTA, NORTH NORWAY. *Can. J. Fish. Aquatic Sci.* 43(10):1828-1835. 1986. In English with French summ. FR 32(1)
[Dir. Nat. Manage., Tungasletta 2, N-7000 Trondheim, Norway]

87-000571 Hesthagen, T. VALIDITY OF THE AGE DETERMINATION FROM SCALES OF BROWN TROUT (*SALMO TRUTTA* L.). *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 65-70. 1985. FR 32(1)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7000 Trondheim, Norway]

87-000572 Hirata, T.; A. Goto and K. Hamada. [BIMODAL LENGTH FREQUENCY DISTRIBUTION IN 0^{+}AGED MASU SALMON, *ONCORHYNCHUS MASOU*, IN A NATURAL STREAM OF SOUTHERN HOKKAIDO.] *Jpn. J. Ichthyol.* 33(2):204-207. 1986. In Japanese with English summ. FR 32(1)
[Lab. Embryol. Genet., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

AGE AND GROWTH (CONTINUED)

87-000573 Iwamoto, R. N.; J. M. Myers and W. K. Hershberger. GENOTYPE-ENVIRONMENT INTERACTIONS FOR GROWTH OF RAINBOW TROUT, *SALMO GAIRDNERI*. *Aquaculture* 57(1-4):153-161. 1986. FR 32(1)
[Domsea Farms, Inc., Bremerton, WA 98195]

87-000574 Jensen, A. J. and B. O. Johnsen. GROWTH AND SMOLT AGE OF ATLANTIC SALMON (*SALMO SALAR* L.) IN THE GLACIER RIVER BEIARELVA, NORTHERN NORWAY. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 86-90. 1985. FR 32(1)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7000 Trondheim, Norway]

87-000575 Jensen, J. W. THE SEASONAL GROWTH OF BROWN TROUT (*SALMO TRUTTA* L.) AND ARCTIC CHAR (*SALVELINUS ALPINUS* L.) IN A MAN-MADE RESERVOIR, AND ITS ENERGY BASIS. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 91-97. 1985. FR 32(1)
[Univ. Trondheim Mus., Zool. Dep., Erling Skakkesgate 47B, N-7000 Trondheim, Norway]

87-000576 Lenarz, W. H. and T. W. Echeverria. COMPARISON OF VISCERAL FAT AND GONADAL FAT VOLUMES OF YELLOWTAIL ROCKFISH, *SEBASTES FLAVIDUS*, DURING A NORMAL YEAR AND A YEAR OF EL NINO CONDITIONS. *NOAA Fish. Bull.* 84(3):743-745. 1986. FR 32(1)
[NMFS, 3150 Paradise Dr., Tiburon, CA 94920]

87-000577 Lobon-Cervia, J.; P. Rovira and O. Soriano. [BIOMETRICS AND GROWTH OF THE RED-ROACH *(RUTILUS ARCASII)* FROM PINILLA RESERVOIR, LOZOYA RIVER, SPAIN.] *Donana Acta Vert.* 12(1):5-19. 1985. In Spanish with English summ. FR 32(1)
[Mus. Nac. Cienç. Nat., Jose Guteirrez Bascal, 2. 28006 Madrid, Spain]

87-000578 Makarova, N. P. CHANGES IN SOME MORPHOECOLOGICAL PARAMETERS OF PERCH, *PERCA FLUVIATILIS*, IN THE LOWER REACHES OF THE VOLGA DELTA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):157-163. 1986. FR 32(1)
[IEMEZH, Moscow, USSR]

87-000579 McAndrew, B. J.; R. D. Ward and J. A. Beardmore. GROWTH RATE AND HETEROZYGOSITY IN THE PLAICE, *PLEURONECTES PLATESSA*. *Heredity* 57(2):171-180. 1986. FR 32(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, U.K.]

87-000580 Miranda, L. E. and P. P. Durocher. EFFECTS OF ENVIRONMENTAL FACTORS ON GROWTH OF LARGEMOUTH BASS IN TEXAS RESERVOIRS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's*. p. 115-121. 1986. FR 32(1)
[Tex. Parks Wildl. Dep., Heart of the Hills Res. Stn., Ingram, Texas 78025]

87-000581 Palazon, J. L. and L. W. Gonalez. [AGE AND GROWTH OF THE MUTTON SNAPPER, *LUTJANUS ANALIS* (CUVIER, 1928) (TELEOSTEI: LUTIJANIDAE), IN MARGARITA ISLAND AND ITS SURROUNDINGS, VENEZUELA.] *Invest. Pesq.* 50(2):151-165. 1986. In Spanish with English summ. FR 32(1)
[Esc. Cienc. Apl. Mar., Univ. Oriente, Apd. Post. 147, Boca de Rio, Isla de Margarita, Venezuela]

AGE AND GROWTH (CONTINUED)

87-000582 Prince, E. D.; D. W. Lee; C. A. Wilson and J. M. Dean. LONGEVITY AND AGE VALIDATION OF A TAG-RECAPTURED ATLANTIC SAILFISH *ISTIOPHORUS PLATYPTERUS*, USING DORSAL SPINES AND OTOLITHS. *NOAA Fish. Bull.* 84(3):493-502. 1986. FR 32(1)
[NOAA, 75 Virginia Beach Dr., Miami, FL 33149-1099]

87-000583 Quast, J. C. ANNUAL PRODUCTION OF EVISCERATED BODY WEIGHT, FAT, AND GONADS BY PACIFIC HERRING, *CLUPEA HARENGUS PALLASI*, NEAR AUKE BAY, SOUTHEASTERN ALASKA. *NOAA Fish. Bull.* 84(3):705-721. 1986. FR 32(1)
[1565 Jamestown St., S.E., Salem, OR 97302]

87-000584 Reis, E. G. AGE AND GROWTH OF THE MARINE CATFISH, *NETUMA BARBA* (SILUIFORMES, ARIIDAE), IN THE ESTUARY OF THE PATOS LAGOON (BRASIL). *NOAA Fish. Bull.* 84(3):679-686. 1986. FR 32(1)
[Dep. Oceanogr., Fund. Univ. Rio Grande, Caixa Post. 474, 96200, Rio Grande, RS, Brazil]

87-000585 Rey, J. C.; E. Alot and A. Ramos. GROWTH OF THE ATLANTIC BONITO (*SARDA SARDA* BLOCH, 1793) IN THE ATLANTIC AND MEDITERRANEAN AREA OF THE STRAIT OF GIBRALTAR. *Invest. Pesq.* 50(2):179-185. 1986. In English with Spanish summ. FR 32(1)
[Inst. Espanol. Oceanogr., Cent. Costero Fuengirola, Apt. 285 Fuengirola, Malaza, Spain]

87-000586 Smith, M. A. K. MEASUREMENT OF SCALE PROTEIN SYNTHESIS AS AN INDEX OF SPECIFIC GROWTH RATE IN *OREOCHROMIS NILOTICUS* (L) AND *LABEO DUSSERMERII* (VALENCIENNES). *Physiol. Zool.* 59(5):514-522. 1986. FR 32(1)
[Channing House, Wargrave, Berkshire, U.K.]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC.

87-000587 Beckley, L. E. THE ICHTHYOPLANKTON ASSEMBLAGE OF THE ALGOA BAY NEARSHORE REGION IN RELATION TO COASTAL ZONE UTILIZATION BY JUVENILE FISH. *S. Afr. J. Zool.* 21(3):244-252. 1986. In English with Afrikaans summ. FR 32(1)
[Mar. Biol. Res. Inst., Zool. Dep., Univ. Cape Town, Rondebosch, South Africa]

87-000588 Ben-Tuvia, A. THE IMPACT OF THE LESSEPSIAN (SUEZ CANAL) FISH MIGRATION ON THE EASTERN MEDITERRANEAN ECOSYSTEM. *IN: M Moraitou-Apostolopoulou and V. Kiortsis, eds. Mediterranean Marine Ecosystems. Plenum Press.* p. 367-375. 1985. FR 32(1)
[Dep. Zool., Hebrew Univ. Jerusalem, Jerusalem 91904, Israel]

87-000589 Borets, L. A. ICHTHYOFAUNA OF THE NORTHWESTERN AND HAWAIIAN SUBMARINE RANGES. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):1-13. 1986. FR 32(1)
[TINRO, Vladivostok, USSR]

87-000590 Briggs, P. T.; S. L. Finkelstein; F. M. Mushacke; A. M. Weber and B. H. Young. RARE OR UNUSUAL FISHES FOUND IN THE MARINE WATERS OF NEW YORK IN 1980 AND 1981. *N.Y. Fish Game J.* 32(1):77-81. 1985. FR 32(1)
[N.Y. State Dep. Environ. Conserv., Stony Brook 11794]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

87-000591 Cincotta, D. A.; R. L. Miles; M. E. Hoeft and G. E. Lewis. DISCOVERY OF *NOTURUS ELEUTHERUS*, *NOTURUS STIGMOSUS*, AND *PERCINA PELTATA* IN WEST VIRGINIA, WITH DISCUSSIONS OF OTHER ADDITIONS AND RECORDS OF FISHES. *Brimleyana* No. 12. p. 101-121. 1986. FR 32(1)
[P.O. Box 67, Elkins, WV 26241]

87-000592 Fago, D. DISTRIBUTION AND RELATIVE ABUNDANCE OF FISHES IN WISCONSIN. VII. ST. CROIX RIVER BASIN. *Wis. Dep. Nat. Resour. Tech. Bull.* No. 159. 112p. 1986. FR 32(1)
[Wis. Dep. Nat. Resour., 3911 Fish Hatchery Rd., Madison 53711]

87-000593 Forsythe, D. M. and W. B. Ezell, Jr. PROCEEDINGS OF THE FIRST SOUTH CAROLINA ENDANGERED SPECIES SYMPOSIUM. *S.C. Mar. Wildl. Mar. Resour. Dep.* 201p. 1976. FR 32(1)

87-000594 George, C. J. OCCURRENCE OF THE SILVER LAMPREY IN THE STILLWATER SECTOR OF THE HUDSON RIVER. *N.Y. Fish Game J.* 32(1):95. 1985. FR 32(1)
[Dep. Biol. Sci., Union Coll., Schenectady 12308]

87-000595 Gordina, A. D. SPECIES COMPOSITION OF ICHTHYOPLANKTON IN SEVEN REGIONS OF THE EAST-CENTRAL ATLANTIC DURING JANUARY-APRIL 1981. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):117-123. 1986. FR 32(1)
[InBYUM, Acad. Sci. Ukrainian SSR, Sevastopol, USSR]

87-000596 Hardy, G. S. AN ANNOTATED LIST OF FISHES FROM THE SNARES ISLANDS, NEW ZEALAND. *Mauri Ora* 13:23-34. 1986. FR 32(1)
[Natl. Mus. N.Z., P.B., Wellington, New Zealand]

87-000597 Hawkes, C. L.; D. L. Miller and W. G. Layher. FISH ECOREGIONS OF KANSAS: STREAM FISH ASSEMBLAGE PATTERNS AND ASSOCIATED ENVIRONMENTAL CORRELATES. *Environ. Biol. Fishes* 17(4):267-279. 1986. FR 32(1)
[USDA For. Serv., Rocky Mount. For. Range Exp. Stn., 240 W. Prospect, Fort Collins, CO 80526]

87-000598 Hickley, P. and R. G. Bailey. FISH COMMUNITIES IN THE PERENNIAL WETLAND OF THE SUDD, SOUTHERN SUDAN. *Freshwater Biol.* 16(5):695-709. 1986. FR 32(1)
[R. G. Bailey: Dep. Human Environ. Sci., King's Coll., (KQC), Hortensia Rd., London SW10 0QX, England]

87-000599 Huh, S. SPECIES COMPOSITION AND SEASONAL VARIATIONS IN ABUNDANCE OF FISHES IN EELGRASS MEADOWS. *Bull. Korean Fish. Soc.* 19(5):509-517. 1986. FR 32(1)
[Dep. Oceanogr., Natl. Fish. Univ. Pusan, Nam-gu, Pusan 608, Korea]

87-000600 Hulley, P. A. LANTERNFISHES OF THE SOUTHERN BENGUELA REGION, FAUNAL COMPLEXITY AND DISTRIBUTION. *Ann. S. Afr. Mus.* 97(7):227-249. 1986. FR 32(1)
[Dep. Mar. Biol., S. Afr. Mus., Cape Town, South Africa]

87-000601 Jenkins, G. P. COMPOSITION, SEASONALITY AND DISTRIBUTION OF ICHTHYOPLANKTON IN PORT PHILLIP BAY, VICTORIA. *Aust. J. Mar. Freshwater Res.* 37(4):507-520. 1986. FR 32(1)
[Dep. Zool., Univ. Melbourne, Parkville, Vic. 3052, Australia]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

87-000602 Killam, K. and G. Parsons. FIRST RECORD OF THE LONGFIN MAKO, *ISURUS PAUCUS*, IN THE GULF OF MEXICO. *NOAA Fish. Bull.* 84(3):748-749. 1986. FR 32(1)
[Dep. Mar. Sci., Univ. South Fla., 104 7th Ave. South, St. Petersburg, FL 33701]

87-000603 Kim, I. S.; Y. J. Lee and Y. U. Kim. [SYNOPSIS OF THE FAMILY GOBIIDAE (PISCES, PERCIFORMES) FROM KOREA.[*Bull. Korean Fish. Soc.* 19(4):387-408. 1986. In Korean with English summ. FR 32(1)
[Dep. Biol., Chonbuk Natl. Univ., Chonju 520, Korea]

87-000604 Lee, D. S. SEASONAL, THERMAL, AND ZONAL DISTRIBUTION OF OCEAN SUNFISH, *MOLA MOLA* (LINNAEUS), OFF THE NORTH CAROLINA COAST. *Brimleyana* No. 12. p. 75-83. 1986. FR 32(1)
[N.C. State Mus. Nat. Hist., P.O. Box 27647, Raleigh 27611]

87-000605 Mauney, M. and O. E. Maughan. HABITAT AND DIVERSITY OF FISHES OF SELECTED TRIBUTARIES OF ROANOKE CREEK, ON THE VIRGINIA PIEDMONT. *Va. J. Sci.* 37(3):157-165. 1986. FR 32(1)
[U.S. Army Corps Eng., Environ. Res. Br., RM B-202 Clifford Davis Fed. Bldg., Memphis, TN 38103]

87-000606 McNeely, D. L. LONGITUDINAL PATTERNS IN THE FISH ASSEMBLAGES OF AN OZARK STREAM. *Southwest. Nat.* 31(3):375-380. 1986. FR 32(1)
[Dep. Biol. Environ. Sci., UPO 951, Morehead State Univ., Morehead, KY 40351]

87-000607 Mees, G. F. FURTHER RECORDS OF AUCHENIPTERIDAE AND PIMELODIDAE FROM SURINAME (PISCES: NEMATOGNATHI). *Zool. Meded. (Leiden)* p.239-249. 1985. FR 32(1)
[Rijksmus. Natl. Hist., Postbus 9517, 2300 RA Leiden, Netherlands]

87-000608 Nakabo, T. and S. Jeon. NEW RECORD OF THE DRAGONET *REPOMUCENUS BENITEGURI* (CALLIONYMIDAE) FROM KOREA. *Jpn. J. Ichthyol.* 33(2):195-196. 1986. In English with Japanese summ. FR 32(1)
[Dep. Fish., Fac. Agric., Kyoto Univ., Kyoto 606, Japan]

87-000609 Sara, M. ECOLOGICAL FACTORS AND THEIR BIOGEOGRAPHIC CONSEQUENCES IN THE MEDITERRANEAN ECOSYSTEMS. *IN: M. Moraitoru-Apostolopoulou and V. Kiortsis, eds. Mediterranean Marine Ecosystems. Plenum Press.* p. 1-17. 1985. FR 32(1)
[Ist. Zool., Univ. Genova, Via Balbi 5, Genova, Italy]

87-000610 Scrimgeour, G. J. NEW RECORDS OF FISH AND BRITTLESTARS FROM THE SNARES ISLANDS, SOUTHERN NEW ZEALAND. *Mauri Ora* 13:35-43. 1986. FR 32(1)
[Dep. Zool., Univ. Canterbury, Christchurch 1, New Zealand]

87-000611 Sewell, S. A. and L. A. Knight, Jr. A PRELIMINARY CHECKLIST OF THE FISHES OF WESTERN TENNESSEE AND NORTHERN MISSISSIPPI. *J. Miss. Acad. Sci.* 31:123-139. 1986. FR 32(1)
[Dep. Biol., Univ. Miss., University 38677]

87-000612 Skelton, P. H.; M. N. Bruton; G. S. Merron and B. C. W. Van der Waal. THE FISHES OF THE OKAVANGO DRAINAGE SYSTEM IN ANGOLA, SOUTH WEST AFRICA AND BOTSWANA: TAXONOMY AND DISTRIBUTION. *J.L.B. Smith Inst. Ichthyol.*

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

87-000612 CONTINUED *Ichthyol. Bull.* No. 50. 21p. 1985. FR 32(1)
[J.L.B. Smith Inst. Ichthyol., Somerset St., Grahamstown 6140, South Africa]

87-000613 Smith, D. L.; J. K. Underwood; J. G. Ogden III and B. C. Sabean. FISH SPECIES DISTRIBUTION AND WATER CHEMISIRY IN NOVA SCOTIA LAKES. *Water Air Soil Pollut.* 30(1-2):489-496. 1986. FR 32(1)
[N.S. Dep. Environ., P.O. Box 2107, Halifax, NS B3J 3B7, Canada]

87-000614 Snytko, V. A. NEW DISTRIBUTION RECORDS OF ROCKFISHES OF THE SUBFAMILY SEBASTINAE IN THE NORTHERN PACIFIC OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):124-130. 1986. FR 32(1)
[TINRO, Vladivostok, USSR]

87-000615 Stibane, F. A. EGGS OF PELAGIC FISH FROM THE SARGASSO SEA WITH SPECIAL REFERENCE TO ANGUILLIFORMES. *Helgol. Meeresunters.* 36(1):99-103. 1983. FR 32(1)
[Biol. Anst. Helgoland Zent., Notkestr. 31, D-2000 Hamburg 52, West Germany]

87-000616 Thompson, K. W.; R. W. Edwards and E. A. McDonald. OCCURRENCE OF THE BANDED SCULPIN, *COTTUS CAROLINAE*, IN MISSISSIPPI. *J. Miss. Acad. Sci.* 31:107-111. 1986. FR 32(1)
[Dep. Biol., Univ. Miss., University 38677]

87-000617 Tortonese, E. DISTRIBUTION AND ECOLOGY OF ENDEMIC ELEMENTS IN THE MEDITERRANEAN FAUNA (FISHES AND ECHINODERMS). *IN: M. Moraitou-Apostolopoulou and V. Kiortsis, eds. Mediterranean Marine Ecosystems. Plenum Press.* p. 57-83. 1985. FR 32(1)
[Ist. Zooprof., Lungo Bisagno Dalmagia 45 A, 16141 Genova, Italy]

87-000618 Tsepkin, E. A. BRIEF REVIEW OF THE FRESHWATER QUATERNARY ICHTHYOFAUNA OF THE ASIAN PART OF THE USSR. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):110-116. 1986. FR 32(1)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

87-000619 Vishwanath, W. and H. T. Singh. FIRST RECORD OF THE BAGRID FISH *MYSTUS MICROPHTHALMUS* FROM INDIA. *Jpn. J. Ichthyol.* 33(2):197-199. 1986. In English with Japanese summ. FR 32(1)
[Dep. Life Sci., Manipur Univ., Imphal, Manipur, India]

87-000620 Williams, J. E.; D. B. Bowman; J. E. Brooks; A. A. Echelle; R. J. Edwards; D. A. Hendrickson and J. J. Landye. ENDANGERED AQUATIC ECOSYSTEMS IN NORTH AMERICAN DESERTS WITH A LIST OF VANISHING FISHES OF THE REGION. *J. Ariz.-Nev. Acad. Sci.* 20(1):1-61. 1985. In English with Spanish summ. FR 32(1)
[U.S. FWS, 2800 Cottage Way, Room E-1823, Sacramento, CA 95825]

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY

87-000621 Bayer, R. D. SEABIRDS NEAR AN OREGON ESTUARINE SALMON HATCHERY IN 1982 AND DURING THE 1983 EL NINO. *NOAA Fish. Bull.* 84(2):279-286. 1986. FR 32(1)
[P.O. Box 1467, Newport, OR 97365]

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY (CONTINUED)

87-000622 Bizer, J. R. ANALYSIS OF FLOW VARIABILITY AND THE RESPONSE OF JUVENILE CHINOOK SALMON *(ONCORHYNCHUS TSHAWYTSCHA)* HABITAT IN THE GLACIAL SUSITNA RIVER, ALASKA. *Prog. IV Int. Congr. Ecol.* p. 93. 1986. Abstract only. FR 32(1)
[Harga Eng. Co., Anchorage, AK 99501]

87-000623 Gray, G. A. and D. W. Rondorf. PREDATION ON JUVENILE SALMONIDS IN COLUMBIA BASIN RESERVOIRS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 178-185. 1986. FR 32(1)
[U.S. FWS, Natl. Fish. Res. Cent., Willard Field Stn., Cook, WA 98605]

87-000624 Grover, J. J. and B. L. Olla. MORPHOLOGICAL EVIDENCE FOR STARVATION AND PREY SIZE SELECTION OF SEA-CAUGHT LARVAL SABLEFISH, *ANOPLOPOMA FIMBRIA. NOAA Fish. Bull.* 84(2):484-489. 1986. FR 32(1)
[Coll. Oceanogr., Oreg. State Univ., Hatfield Mar. Sci. Cent., Newport 97365]

87-000625 Henerson, B. A. EFFECT OF SEA LAMPREY (*PETROMYZON MARINUS*) PARASITIM ON THE ABUNDANCE OF WHITE SUCKERS (*CATOSTOMUS COMMERSONI*) IN SOUTH BAY, LAKE HURON. *J. Appl. Ecol.* 23(2):381-389. 1986. FR 32(1)
[Ontario Minist. Nat. Resour., Fish. Res. Sect., Fish. Br., P.O. Box 50, Maple, ON L0J 1E0, Canada]

87-000626 Jones, R. L. and H. M. Tyus. RECRUITMENT OF COLORADO SQUAWFISH, *PTYCHOCHEILUS LUCIUS* IN THE GREEN RIVER BASIN, COLORADO AND UTAH. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:169. 1985. Abstract only. FR 32(1)
[U.S. FWS, 447 E. Main St., Vernal, UT 84078]

87-000627 Kaeding, L. R. TEMPERATURE AS A RESOURCE LIMITING COLORADO SQUAWFISH IN THE UPPER COLORADO RIVER BASIN. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:147-162. 1985. FR 32(1)
[U.S. FWS, Colo. River Fish. Proj., 551 25 1/2 Rd., Grand Junction, CO 81505]

87-000628 MacCrimmon, H. R. and B. L. Gots. LABORATORY OBSERVATIONS ON EMERGENT PATTERNS OF JUVENILE RAINBOW TROUT, *SALMO GAIRDNERI*, RELATIVE TO TEST SUBSTRATE COMPOSITION. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 63-76. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000629 Martin, J. H. A. THE PHYSICAL AND BIOLOGICAL EFFECTS OF THE 1970s SALINITY ANOMALY. *Scott. Fish. Bull.* 49. p.24-31. 1986. FR 32(1)
[Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

87-000630 Ringler, N. H. and K. D. Hyatt. THE ROLE OF NEST RAIDING AND EGG PREDATION IN REGULATING POPULATION DENSITY OF THREESPINE STICKLEBACKS *(GASTEROSTEUS ACULEATUS)* IN A COASTAL B.C. LAKE. *Prog. IV Int. Congr. Ecol.* p. 286. 1986. Abstract only. FR 32(1)
[State Univ. N.Y., Syracuse 13210]

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY (CONTINUED)

87-000631 Siler, J. R.; W. J. Foris and M. C. McInerny. SPATIAL HETEROGENEITY IN FISH PARAMETERS WITHIN A RESERVOIR. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 122-136. 1986. FR 32(1)
[Duke Power Co., Rt. 4, Box 531, Huntersville, NC 28078]

87-000632 Van Den Berghe, E. P. and M. R. Gross. LENGTH OF BREEDING LIFE OF COHO SALMON (*ORCORHYNCHUS KISUTCH*). *Can. J. Zool.* 64(7):1482-1486. 1986. In English with French summ. FR 32(1)
[M.R. Gross: Dep. Biol. Sci., Simon Fraser Univ., Burnaby, BC V5A 1S6, Canada]

87-000633 Wilde, G. R.; M. A. Bozek and L. J. Paulson. FACTORS CONTRIBUTING TO THE SUCCESS OF THE RAZORBACK SUCKER IN LAKE MOHAVE, ARIZONA-NEVADA. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:186-192. 1985. FR 32(1)
[Lake Mead Limnol. Res. Cent., Univ. Nev., Las Vegas 89154]

87-000634 Wooster, W. S. and D. L. Fluharty (eds.) EL NINO NORTH: NINO EFFECTS THE EASTERN SUBARCTIC PACIFIC OCEAN. *Wash. Sea Grant Prog.* 312p. 1985. FR 32(1)
[Avaliable @ $10.00 from Wash. Sea Grant Prog., Coll. Ocean Fish. Sci., Univ. Wash., Seattle 98195]

IDENTIFICATION, KEYS, CLASSIFICATION

87-000635 Brewster, B. A REVIEW OF THE GENUS *HYDROCYNUS* CUVIER 1819 (TELEOSTEI: CHARACIFORMES). *Bull. Br. Mus. (Nat. Hist.)* 50(3):163-206. 1986. FR 32(1)
[Dep. Zool., Br. Mus. (Nat. Hist.), Cromwell RD., London SW7 5BD, England]

87-000636 Campagno, L. J. V. and M. J. Smale. *PARAGALEUS LEUCOLOMATUS*, A NEW SHARK FROM SOUTH AFRICA, WITH NOTES ON THE SYSTEMATICS OF HEMIGALEID SHARKS (CARCHARHINIFORMES: HEMIGALEIDAE). *J.L.B. Smith Inst. Ichthyol. Spec. Publ.* No. 37. 21p. 1985. FR 32(1)
[J.L.B. Smith Inst. Ichthyol., Somerset St., Grahamstown 6140, South Africa]

87-000637 Crowley, L. E. L. M.; W. Ivantsoff and G. R. Allen. TAXONOMIC POSITION OF TWO CRIMSON-SPOTTED RAINBOWFISH, *MELANOTAENIA DUBOULAYI* AND *MALANOTAENIA FLUVIATILIS* (PISCES: MELANOTAENIIDAE), FROM EASTERN AUSTRALIA, WITH SPECIAL REFERENCE TO THEIR EARLY LIFE-HISTORY STAGES. *Aust. J. Mar. Freshwater Res.* 37(3):385-398. 1986. FR 32(1)
[Macquarie Univ., North Ryde, N.S.W. 2113, Australia]

87-000638 Duggins, C. F., Jr.; A. A. Karlin; K. Relyea and R. W. Yerger. SYSTEMATICS OF THE KEY SILVERSIDE, *MENIDIA CONCHORUM*, WITH COMMENTS ON OTHER *MENIDIA* SPECIES (PISCES: ATHERINIDAE). *Tulane Stud. Zool. Bot.* 25(2):133-150. 1986. FR 32(1)
[Dep. Biol, Univ. S.C., Columbia 29208]

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

87-000639 Fudge, R. J. P.; R. A. Bodaly and M. Viljanen. IDENTIFICATION OF LARVAL LAKE WHITEFISH *(COREGONUS CLUPEAFORMIS)* AND CISCO *(COREGONUS ARTEDII)*, FROM SOUTHERN INDIAN LAKE, MANITOBA BY PIGMENTATION CHARACTERISTICS AND BY ISOELECTRIC FOCUSING OF WHOLE BODY PROTEIN EXTRACTS. *Can. Tech. Rep. Fish. Aquatic Sci.* No. 1471. iv+30p. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Oceans, Winnipeg, MB R3T 2N6, Canada]

87-000640 Hoese, D. F. and S. Reader. A NEW GOBIID FISH, *FUSIGOBIUS DUOSPILUS*, FROM THE TROPICAL INDO-PACIFIC. *J. L. B. Smith Inst. Ichthyol. Spec. Publ.* No. 36. 9p. 1985. FR 32(1)
[Aust. Mus., P.O. Box A285, Sydney, N.S.W. 2000, Australia]

87-000641 Hoese, D. F. DESCRIPTIONS OF TWO NEW SPECIES OF *HETERELEOTRIS* (PISCES: GOBIIDAE) FROM THE WESTERN INDIAN OCEAN, WITH DISCUSSION OF RELATED SPECIES. *J.L.B. Inst. Ichthyol. Spec. Publ.* No. 41. 25p. 1986. FR 32(1)
[Aust. Mus., P.O. Box A285, Sydney, N.S.W. 2000, Australia]

87-000642 Isbrucker, I. J. H. and H. Nijssen. *EXASTILITHOXUS HOEDEMANI*, A NEW SPECIES OF MAILED CATFISH FROM RIO MARAUIA, EST. AMAZONAS, BRAZIL. *Spixiana (Muench.)* 8(3):221-229. 1985. FR 32(1)
[Inst. Taxon. Zool., Zool. Mus., Univ. Amsterdam, Netherlands]

87-000643 Ivoylov, A. A. CLASSIFICATION AND NOMENCLATURE OF TILAPIAS OF THE TRIBE *TILAPIINI* (CICHLIDAE)--NEW COMMERCIAL FISHES IN WARM WATERS OF THE USSR. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):97-109. 1986. FR 32(1)
[BiNII LGU, Leningrad, USSR]

87-000644 Jackson, P. B. N. *ASTATOTILAPIA TWEDDLEI*, A NEW SPECIES OF FLUVIATILE HAPLOCHROMINE CICHLID FISH FROM LAKES CHILWA AND CHIUTA, MALAWI, WITH ZOOGEOGRAPHICAL NOTES. *J.L.B. Smith Inst. Ichthyol. Spec. Publ.* No. 38. 10p. 1985. FR 32(1)
[J.L.B. Smith Inst. Ichthyol., Somerset St., Grahamstown 6140, South Africa]

87-000645 Kailola, P. J. *ARIUS PERONII*: A DISTINCT SPECIES OF FORK-TAILED CATFISH (PISCES: ARIIDAE). *J. Zool. (Lond.)* 210(2):243-250. 1986. FR 32(1)
[Dep. Zool., Univ. Adelaide, G.P.O. Box 498, Adelaide, S.A. 5001, Australia]

87-000646 Larson, H. K. and P. J. Miller. TWO NEW SPECIES OF *SILHOUETTEA* (GOBIIDAE) FROM NORTHERN AUSTRALIA. *Jpn. J. Ichthyol.* 33(2):110-118. 1986. In English with Japanese summ. FR 32(1)
[Div. Nat. Sci., North. Terr. Mus., G.P.O. Box 4646, Darwin, Australia 5794]

87-000647 Muth, R. T. and S. P. Platania. COMPARATIVE MORPHOLOGY OF THE INTERNEURAL BONES OF METALARVAL AND EARLY-JUVENILE RAZORBACK SUCKER *(XRAUCHEN TEXANUS)*, BLUEHEAD SUCKER *(CATOSTOMUS DISCOBOLUS)*, AND FLANNELMOUTH SUCKER *(CATOSTOMUS LATIPINNIS)*, FROM THE UPPER COLORADO RIVER BASIN. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:170. 1985. Abstract only. FR 32(1)
[Larval Fish Lab., Colo. State Univ., Fort Collins 80523]

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

87-000648 Muth, R. T.; C. M. Haynes and C. A. Carlson. TAXONOMIC IDENTIFICATION OF LARVAL AND EARLY-JUVENILE *GILA* NATIVE TO THE UPPER COLORADO RIVER BASIN. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:165. 1985. Abstract only. FR 32(1)
[Larval Fish Lab., Colo. State Univ., Fort Collins 80523]

87-000649 Nijssen, H. and I. J. H. Isbrucker. REVIEW OF THE GENUS *CORYDORAS* FROM PERU AND ECUADOR (PISCES, SILURIFORMES, CALLICHTHYIDAE). *Stud. Neotrop. Fauna Environ.* 21(1-2):1-68. 1986. FR 32(1)
[Inst. Taxon. Zool., Univ. Amsterdam, P.O. Box 20125, 1000 HC Amsterdam, Netherlands]

87-000650 Randall, J. E. and P. C. Heemstra. A REVIEW OF THE SQUIRRELFISHES OF THE SUBFAMILY HOLOCENTRINAE FROM THE WESTERN INDIAN OCEAN AND RED SEA. *J.L.B. Smith Inst. Ichthyol. Ichthyol. Bull.* No. 49. 29p. 1985. FR 32(1)
[Bernice P. Bishop Mus., Box 19000-A, Honolulu, HI 96819]

87-000651 Roberts, T. R. SYSTEMATIC REVIEW OF THE MASTACEMBELIDAE OR SPINY EELS OF BURMA AND THAILAND, WITH DESCRIPTION OF TWO NEW SPECIES OF *MACROGNATHUS*. *Jpn. J. Ichthyol.* 33(2):95-109. 1986. In English with Japanese summ. FR 32(1)
[Dep. Ichthyol., Calif. Acad. Sci., San Francisco 94118]

87-000652 Robins, C. R. THE STATUS OF THE OPHIDIID FISHES *OPHIDIUM BREVIBARBE* CUVIER, *OPHIDIUM GRAELLSI* POEY, AND *LEPTOPHIDIUM PROFUNDORUM* GILL. *Proc. Biol. Soc. Wash.* 99(3):384-387. 1986. FR 32(1)
[Rosenstiel Sch. Mar. Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149].

87-000653 Schwassman, H. O. and M. L. Carvalho. *ARCHOLAEMUS BLAX* KORRINGA (PISCES, GYMNOTIFORMES, STERNOPYGIDAE); A REDESCRIPTION WITH NOTES ON ECOLOGY. *Spixiana (Muench.)* 8(3):231-240. 1985. FR 32(1)
[Dep. Zool., Univ. Fla., Gainesville]

87-000654 Taniuchi, T. and J. A. F. Garrick. A NEW SPECIES OF *SCYMNODALATIAS* FROM THE SOUTHERN OCEANS, AND COMMENTS ON OTHER SQUALIFORM SHARKS. *Jpn. J. Ichthyol.* 33(2):119-134. 1986. In English with Japanese summ. FR 32(1)
[Dep. Fish., Fac. Agric., Univ. Tokyo, 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113, Japan]

87-000655 Weems, R. E. and J. F. Windolph, Jr. A NEW ACTINOPTERYGIAN FISH (PALEONISCIFORMES) FROM THE UPPER MISSISSIPPIAN BLUESTONE FORMATION OF WEST VIRGINIA. *Proc. Biol. Soc. Wash.* 99(4):584-601. 1986. FR 32(1)
[Mail Stop 928, U.S.G.S., Reston, VA 22092]

87-000656 Weitzman, M. J. and R. P. Vari. *ASTYANAX SCOLOGASTER*, A NEW CHARACID (PISCES: OSTARIOPHYSI) FROM THE RIO NEGRO, SOUTH AMERICA. *Proc. Biol. Soc. Wash.* 99(4):709-716. 1986. FR 32(1)
[Dep. Vert. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560]

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

87-000657 Williams, J. E. and J. E. Deacon. SUBSPECIFIC IDENTITY OF THE AMARGOSA PUPFISH, *CYPRINODON NEVADENSIS*, FROM CRYSTAL SPRING, ASH MEADOWS, NEVADA. *Great Basin Nat.* 46(2):220-223. 1986. FR 32(1)
[U.S. FWS, 2800 Cottage Way, Room E-1823, Sacramento, CA 95825]

87-000658 Young, G. C. THE RELATIONSHIPS OF PLACODERM FISHES. *Zool. J. Linn. Soc.* 88(1):1-57. 1986. FR 32(1)
[Div. Cont. Geol., Bur. Mineral Resour., P.O. Box 378, Canberra, ACT, Australia 2601]

PARASITES AND DISEASES-GENERAL

87-000659 Alexander, J. B. NON-IMMUNOGLOBULIN HUMORAL DEFENCE MECHANISMS IN FISH. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 133-140. FR 32(1)
[Dep. Biol., Sch. Life Sci., Univ. Salford, Salford M4 5WT, U.K.]

87-000660 Anderson, D. P. and O. W. Dixon. FISH BIOLOGICS: ANTISERA FOR FISH DISEASE DIAGNOSIS. *Symp. Biol. Hung.* 23:251-260. 1984. FR 32(1)
[U.S. FWS, Natl. Fish Health Res. Lab., Kearneysville, WV 25430]

87-000661 Carnevia, D. and R. Mazzoni. A PRELIMINARY NOTE ON THE PARASITOFAUNA OF THE LEBRANCHE MULLET (*MUGIL LIZA* VAL., 1836) IN URUGUAY. *Riv. Ital. Piscic. Ittiop.* 21(3):109-111. 1986. In Italian with English summ. FR 32(1)
[Inst. Invest. Pesq., Fac. Vet., Univ. Republica, Tomas Basanez 1160, Montevideo, Uruguay]

87-000662 Csaba, G.; B. Kormendy and L. Bekesi. OBSERVATIONS ON THE CAUSATIVE AGENT OF CARP ERYTHRODERMATITIS IN HUNGARY. *Symp. Biol. Hung.* 23:63-74. 1984. FR 32(1)
[Cent. Vet. Inst., Budapest, Hungary]

87-000663 Dunier, M. ABSENCE OF ANAMNESTIC ANTIBODY RESPONSE TO DNP-HAEMOCYANIN AND DNP-FICOLL IN RAINBOW TROUT. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 171-184. FR 32(1)
[Lab. Ichtyopathol., Groupe Lab. Pathol. Anim., Route de Thiverval, 78850, Thiverval-Grignon, France]

87-000664 Evelyn, T. P. T.; L. Prosperi-Porta and J. E. Ketcheson. PERSISTENCE OF THE KIDNEY-DISEASE BACTERIUM, *RENIBACTERIUM SALMONINARUM*, IN COHO SALMON, *ONCORHYNCHUS KISUTCH* (WALBAUM), EGGS TREATED DURING AND AFTER WATER-HARDENING WITH POVIDONE-IODINE. *J. Fish Dis.* 9(5):461-464. 1986. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-000665 Fijan, N. VACCINATION OF FISH IN EUROPEAN POND CULTURE: PROSPECTS AND CONSTRAINTS. *Symp. Biol. Hung.* 23:233-241. 1984. FR 32(1)
[Dep. Biol. Pathol. Fish Bees, Vet. Fac., Univ. Zagreb, Zagreb, Yugoslavia]

87-000666 Grondel, J. L. and E. G. M. Harmsen. DO FISH HAVE INTERLEUKINS? *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 261-262. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P.O. Box 338, 6700 AH Wageningen, Netherlands]

PARASITES AND DISEASES-GENERAL (CONTINUED)

87-000667 Grondel, J. L.; J. F. M. Nouws and O. L. M. Haenen. FISH AND ANTIBIOTICS: PHARMACOKINETICS OF SULPHADIMIDINE IN CARP (*CYPRINUS CARPIO*). *Vet. Immunol. Immunopathol.* 12(1-4):281-286. 1986. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P.O. Box 338, 6700 AH Wageningen, Netherlands]

87-000668 Ingram, G. A. THE IMMUNE RESPONSE OF BROWN TROUT, *SALMO TRUTTA* TO SHEEP AND HUMAN 'O' ERYTHROCYTES. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 157-170. FR 32(1)
[Dep. Biol., Sch. Life Sci., Univ. Salford, Salford M5 4WT, U.K.]

87-000669 Khokhlova, A. N. [THE PARASITE FAUNA OF FISH IN LAKE SHCHUCH'E OF THE ERAVNO-KHARGINSK LAKE SYSTEM.] *In: A. F. Alimov and N. M. Pronin, eds. Gidrobiol. Gidroparazitol. Pribaikal'ya Zabaikal'ya.* p. 68-78. 1985. In Russian. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 55(10):382-383. 1986. FR 32(1)

87-000670 Liquori V. M. and G. D. Insler. GILL PARASITES OF THE WHITE PERCH: PHENOLOGIES IN THE LOWER HUDSON RIVER. *N.Y. Fish Game J.* 32(1):71-76. 1985. FR 32(1)
[Cent. Mar. Biotechnol., Harbor Br. Inst., Fort Pierce, FL 33450]

87-000671 Lucky, Z. INVESTIGATION ON INVASIVE DISEASES OF THE HERBIVOROUS FISH FRY AND THEIR TREATMENT. *Symp. Biol. Hung.* 23:173-180. 1984. FR 32(1)
[Dep. Poultry Fish Bee Wildl. Dis., Vet. Sch., Brno, Czechoslovakia]

87-000672 Malhotra, S. K. and D. Gairola. POLYPARASITIC INFECTIONS IN AN ECONOMICALLY IMPORTANT FOOD FISH, *EUTROPICHTHYS VACHA*, AND CORRELATION WITH SEX AND SIZE OF HOST IN THE GANGES RIVER AT ALLAHABAD. *Prog. IV Int. Congr. Ecol.* p. 225. 1986. Abstract only. FR 32(1)
[Univ. Allahabad, Allahabad 211 002, U.P., India]

87-000673 Mughal, M. S. and M. J. Manning. ANTIBODY RESPONSES OF YOUNG CARP, *CYPRINUS CARPIO*, AND GREY MULLET, *CHELON LABROSUS*, IMMUNIZED WITH SOLUBLE ANTIGEN BY VARIOUS ROUTES. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 313-325. FR 32(1)
[Dep. Biol. Sci., Plymouth Polytech, Plymouth, Devon PL4 8AA, England]

87-000674 Murchelano, R. A.; L. Despres-Patanjo and J. Ziskowski. A HISTOPATHOLOGIC EVALUATION OF GROSS LESIONS EXCISED FROM COMMERCIALLY IMPORTANT NORTH ATLANTIC MARINE FISHES. *NOAA Tech. Rep. NMFS* 37. iii + 14p. 1986. FR 32(1)
[NMFS, Oxford, MD 21654]

87-000675 Olesen, N. J. and P. E. Vestergard Jorgensen. QUANTIFICATION OF SERUM IMMUNOGLOBULIN IN RAINBOW TROUT *SALMO GAIRDNERI* UNDER VARIOUS ENVIRONMENTAL CONDITIONS. *Dis. Aquat. Organ.* 1(3):183-189. 1986. FR 32(1)
[Natl. Vet. Lab., Hangovej 2, 8200 Arhus N, Denmark]

87-000676 Peters, G. and L. Q. Hong. GILL STRUCTURE AND BLOOD ELECTROLYTE LEVEL OF EUROPEAN EEL UNDER STRESS. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 104. 1984. Abstract only. FR 32(1)

PARASITES AND DISEASES-GENERAL (CONTINUED)

87-000676 CONTINUED
[Inst. Hydrobiol. Fischereiwiss., Univ. Hamburg, Olbersweg 24, 2000 Hamburg 50, West Germany]

87-000677 Peters, G.; R. Hoffman and L. Jorgensen. GILL AND FIN LESIONS IN RAINGOW TROUT FROM NORTH-GERMAN CULTURE FACILITIES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 103. Abstract only. FR 32(1)
[Inst. Hydrobiol. Fischereiwiss., Univ. Hamburg, Olbersweg 24, 2000 Hamburg 50, West Germany]

87-000678 Pillai, C. T. STUDIES ON MICROBIAL DISEASES OF MARINE FINFISHES FROM INDIA. *Riv. Ital. Piscic. Ittiop.* 21(3):91-96. 1986. In Italian with English summ. FR 32(1)
[Bighinjam Res. Cent. C.M.F.R. Inst., Viyhinjam, Trivandrum, Kerala, India]

87-000679 Plumb, J. A. RELATIONSHIP OF WATER QUALITY AND INFECTIOUS DISEASES IN CULTURED CHANNEL CATFISH. *Symp. Biol. Hung.* 23:189-199. 1984. FR 32(1)
[Southeast. Coop. Fish Dis. Proj., Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

87-000680 Pronin, N. M.; G. D. Tarmakhanov and O. T. Rusinek. [THE INFLUENCE OF THE WARM WATERS FROM LAKE GUSINOE HYDRO-ELECTRIC STATION ON THE PARASITE FAUNAS OF *PERCA FLUVIATILIS* AND *ESOX LUCIUS*.] *In: A. F. Alimov and N. M. Pronin, eds. Gidrobiol. Gidroparazitol. Pribaikal'ya Zabaikal'ya.* p. 30-44. 1985. In Russian. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 55(10):383. 1986. FR 32(1)

87-000681 Van Muiswinkel, W. B.; D. P. Anderson; C. H. J. Lamers; E. Egberts; J. J. A. Van Loon and J. P. Ijssel. FISH IMMUNOLOGY AND FISH HEALTH. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 1-8. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P. O. Box 338, 6700 AH Wageningen, Netherlands]

87-000682 Wishkovski, A. and R. R. Avtalion. INDUCTION OF SPECIFIC SUPPRESSION TO DIFFERENT PROTEIN ANTIGENS IN CARP *(CYPRINUS CARPIO)* AND ITS POSSIBLE IMPLICATION IN THE MECHANISM OF PATHOGENESIS IN FISHES. *Eur. Maricult. Soc. Spec. Publ.* No. 8. p. 129-138. 1984. FR 32(1)
[Dep. Life Sci., Bar-Ilan Univ., Ranat-Gan, 52 100 Israel]

87-000683 Zitnan, R. NEW HELMINTHOSES OF THE CARP IN THE CARPATHIAN REGION OF CZECHOSLOVAKIA. *Symp. Biol. Hung.* 23:157-172. 1984. FR 32(1)
[Helminthol. Inst. Slovak Acad. Sci., Kosice, Czechoslovakia]

87-000684 Zubchenko, A. V. PARASITIC FAUNA OF AMERICAN PLAICE *(HIPPOGLOSSOIDES PLATESSOIDES)* FROM THE NORTHWEST ATLANTIC. *J. Northwest Atl. Fish. Sci.* 6(2):165-171. 1985. FR 32(1)
[PINRO, 6 Knipovich St., 183763, Murmansk, USSR]

BACTERIAL DISEASES

87-000685 Ainsworth, A. J.; G. Capley; P. Waterstreet and D. Munson. USE OF MONOCLONAL ANTIBODIES IN THE INDIRECT FLUORESCENT ANTIBODY TECHNIQUE (IFA) FOR DIAGNOSIS OF *EDWARDSIELLA ICTALURI*. *J. Fish Dis.* 9(5):439-444. 1986.

BACTERIAL DISEASES (CONTINUED)

87-000685 CONTINUED FR 32(1)
[Coll. Vet. Med., Drawer V, Miss. State Univ., MS 39762]

87-000686 Aoki, T.; A. Akashi and T. Sakaguchi. PHYLOGENETIC RELATIONSHIPS OF TRANSFERABLE R PLASMIDS FROM *EDWARDSIELLA TARDA*. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1173-1179. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Miyazaki Univ., Miyazaki 889-21, Japan]

87-000687 Austin, B.; I. Bishop; C. Gray; B. Watt and J. Dawes. MONOCLONAL ANTIBODY-BASED ENZYME-LINKED IMMUNOSORBENT ASSAYS FOR THE RAPID DIAGNOSIS OF CLINICAL CASES OF ENTERIC REDMOUTH AND FURUNCULOSIS IN FISH FARMS. *J. Fish Dis.* 9(5):469-474. 1986. FR 32(1)
[Dep. Brewing Biol. Sci., Heriot-Watt Univ., Chambers St., Edinburgh EH1 1HX, Scotland]

87-000688 Bruno, D. W.; T. S. Hastings and A. E. Ellis. HISTOPATHOLOGY, BACTERIOLOGY AND EXPERIMENTAL TRANSMISSION OF COLD-WATER VIBRIOSIS IN ATLANTIC SALMON *SALMO SALAR*. *Dis. Aquat. Organ.* 1(3):163-168. 1986. FR 32(1)
[Dep. Agric. Fish. Scotland, Mar. Lab., Victoria Rd., Aberdeen AB9 8DB, Scotland]

87-000689 Bullock, G. L.; T. C. Hsu and E. B. Shotts, Jr. COLUMNARIS DISEASE OF FISHES. *U.S. Fish Wildl. Serv. Fish Dis. Leafl.* 72. 9p. 1986. FR 32(1)
[U.S. FWS, Box 700, Kearneysville, WV 25430]

87-000690 Cipriano, R. C.; W. B. Schill; S. W. Pyle and R. Horner. AN EPIZOOTIC IN CHINOOK SALMON *(ONCORHYNCHUS TSHAWYTSCHA)* CAUSED BY A SORBITOL-POSITIVE SEROVAR 2 STRAIN OF *YERSINIA RUCKERI*. *J. Wildl. Dis.* 22(4):488-492. 1986. FR 32(1)
[U.S. FWS, Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430]

87-000691 Csaba, G.; M. Prigli; E. Kovacs-Gayer; L. Bekesi; E. Bajmocy and B. Fazekas. SEPTICAEMIA IN SILVER CARP (HYPOPHTHALMICHTHYS MOLITRIX VAL.) AND BIGHEAD CARP (*ARISTICHTHYS NOBILIS* RICH.) CAUSED BY *PSEUDOMONAS FLUORESCENS*. *Symp. Biol. Hung.* 23:75-84. 1984. FR 32(1)
[Cent. Vet. Inst., Budapest, Hungary]

87-000692 Dooley, J. S. G.; R. Lallier and T. J. Trust. SURFACE ANTIGENS OF VIRULENT STRAINS OF *AEROMONAS HYDROPHILA*. *Vet. Immunol. Immunopathol.* 12(1-4):339-344. 1986. FR 32(1)
[Dep. Biochem. Microbiol., Univ. Victoria, Victoria, BC V8W 2Y2, Canada]

87-000693 Ellis, A. E. FISH SERUM PRECIPITINS TO *AEROMONAS SALMONICIDA* EXOTOXINS AND PROTEASE-LIPOPROTEIN REACTIONS: A CRITICAL APPRAISAL. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 107-121. FR 32(1)
[DAFS Mar. Lab., Aberdeen, Scotland]

87-000694 Evelyn, T. P. T.; L. Prosperi-Porta and J. E. Ketcheson. EXPERIMENTAL INTRA-OVUM INFECTION OF SALMONID EGGS WITH *RENIBACTERIUM SALMONARUM* AND VERTICAL TRANSMISSION OF THE PATHOGEN WITH SUCH EGGS DESPITE

BACTERIAL DISEASES (CONTINUED)

87-000694 CONTINUED THEIR TREATMENT WITH ERYTHROMYCIN. *Dis. Aquat. Organ.* 1(3):197-202. 1986. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-000695 Evenberg, D.; P. De Graaff; W. Fleuren and W. B. Muiwinkel. BLOOD CHANGES IN CARP (*CYPRINUS CARPIO*) INDUCED BY ULCERATIVE *AEROMONAS SALMONICIDA* INFECTIONS. *Vet. Immunol. Immunopathol.* 12(1-4):321-330. 1986. FR 32(1)
[Natl. Inst. Publ. Health Environ. Hygiene, Unit Immunochem., P.O. Box 1, 3720 BA Bitlhoven, Netherlands]

87-000696 Farkas, J. and J. Olah. GILL NECROSIS - A COMPLEX DISEASE OF CARP. *Aquaculture* 58(1-2):17-26. 1986. FR 32(1)
[Fish. Cult. Res. Inst., P.O. Box 47, H-5541 Szarvas, Hungary]

87-000697 Farkas, J. and J. Olah. OCCURRENCE, EXPERIMENTAL INFECTION AND TREATMENT OF MYXOBACTERIAL GILL DISEASE OF CARP. *Symp. Biol. Hung.* 23:55-61. 1984. FR 32(1)
[Fish. Res. Inst., Szarvas, Hungary]

87-000698 Farkas, J. and J. Olah. OCCURRENCE OF PASTEURELLA AND STREPTOCOCCUS IN SHEATFISH (*SILURUS GLANIS* L.) AND COMMON CARP (*CYPRINUS CARPIO* L.). *Symp. Biol. Hung.* 23:47-54. 1984. FR 32(1)
[Fish. Res. Inst., Szarvas, Hungary]

87-000699 Fyfe, L.; A. Finley; G. Coleman and A. L. S. Munro. A STUDY OF THE PATHOLOGICAL EFFECT OF ISOLATED *AEROMONAS SALMONICIDA* EXTRACELLULAR PROTEASE ON ATLANTIC SALMON, *SALMO SALAR* L. *J. Fish Dis.* 9(5):403-409. 1986. FR 32(1)
[Dep. Biochem., Nottingham Univ. Med. Sch., Nottingham, England]

87-000700 Hockney, M. J. AN INVESTIGATION OF THE SKIN OF RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, FOR ANTIGEN UPTAKE MECHANISMS FOLLOWING SPRAY VACCINATION. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 195-205. FR 32(1)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen AB9 2TN, Scotland]

87-000701 Jeney, G.; J. Nemcsok and J. Olah. TRANSAMINASE ENZYME ACTIVITY OF CYPRINID FISH DEPENDING ON ENVIRONMENTAL FACTORS AND BACTERIAL INFECTION. *Symp. Biol. Hung.* 23:201-207. 1984. FR 32(1)
[Fish. Res. Inst., Szarvas, Hungary]

87-000702 Kitao, T. and Y. Yoshida. EFFECT OF AN IMMUNOPOTENTIATOR ON *AEROMONAS SALMONICIDA* INFECTION IN RAINBOW TROUT (*SALMO GAIRDNERI*). *Vet. Immunol. Immunopathol.* 12(1-4):287-296. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Miyazaki Univ., 7710 Kumano, Miyazaki 889-21, Japan]

87-000703 Lamers, C. H. J. and M. J. H. De Haas. BATH VACCINATION AND DEVELOPMENT OF IMMUNOLOGICAL MEMORY IN CARP (*CYPRINUS CARPIO* L.). *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 231-232. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P.O. Box 338, 6700 AH Wageningen, Netherlands]

BACTERIAL DISEASES (CONTINUED)

87-000704 Lio-Po, G. and H. Wakabayashi. IMMUNO-RESPONSE IN TILAPIA *SAROTHERODON NILOTICUS* VACCINATED WITH *EDWARDSIELLA TARDA* BY HYPEROSMOTIC INFILTRATION METHOD. *Vet. Immunol. Immunopathol.* 12(1-4): 351-357. 1986. FR 32(1)
[Aquacult. Dep., Southeast Asian Fish. Dev. Cent., Tigbawan, Iloilo, Philippines]

87-000705 Miyazaki, T. and N. Kaige. A HISTOPATHOLOGICAL STUDY ON MOTILE AEROMONAD DISEASE OF CRUCIAN CARP. *Fish Pathol.* 21(3):181-185. 1986. FR 32(1)
[Fac. Fish., Mie Univ., 2-80, Edobashi, Tsu, Mie 514, Japan]

87-000706 Miyazaki, T. and Y. Jo. [A HISTOPATHOLOGICAL STUDY ON BACTERIAL GILL DISEASE OF THE AYU.] *Fish Pathol.* 21(3):207-208. 1986. In Japanese. FR 32(1)

87-000707 Mughal, M. S.; E. K. Farley-Ewens and M. J. Manning. EFFECTS OF DIRECT IMMERSION IN ANTIGEN ON IMMUNOLOGICAL MEMORY IN YOUNG CARP, *CYPRINUS CARPIO*. *Vet. Immunol. Immunopathol.* 12(1-4):181-192. 1986. FR 32(1)
[M. J. Manning: Dep. Biol. Sci., Plymouth Polytech., Plymouth, Devon PL4 8AA, U.K.]

87-000708 Neumann, D. A. and M. R. Tripp. INFLUENCE OF ROUTE OF ADMINISTRATION ON THE HUMORAL RESPONSE OF CHANNEL CATFISH (*ICTALURUS PUNCTATUS*) TO *YERSINIA RUCKERI*. *Vet. Immunol. Immunopathol.* 12(1-4):163-174. 1986. FR 32(1)
[Sch. Life Health Sci., Univ. Del., Newark 19716]

87-000709 O'Neill, J. G. SEQUENTIAL ANTIGENIC COMPETITION IN TELEOSTS: A BACTERIOPHAGE-*AEROMONAS SALMONICIDA* INTERACTION. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 141-155. FR 32(1)
[Leicester Sch. Pharm., Leicester Polytech., Leicester, England]

87-000710 Olivier, G.; C. A. Eaton and N. Campbell. INTERACTION BETWEEN *AEROMONAS SALMONICIDA* AND PERITONEAL MACROPHAGES OF BROOK TROUT (*SALVELINUS FONTINALIS*). *Vet. Immunol. Immunopathol.* 12(1-4):223-234. 1986. FR 32(1)
[Halifax Fish. Res. Lab., P.O. Box 550, Halifax, NS B3J 2S7, Canada]

87-000711 Petrinec, Z.; T. Naglic; Z. Matasin and N. Fijan. *PSEUDOMONAS FLUORESCENS* SEPTICAEMIA IN BIGHEAD (ARISTICHTHYS NOBILIS, RICH.) FOLLOWING HANDLING. *Vet. Arh.* 55(6):277-284. 1985. From Vet. Bull. 56(11):965. 1986. FR 32(1)
[Vet. Fak., Sveuciliste, YU 41001 Zagreb, p.p. 190, Yugoslavia]

87-000712 Plumb, J. A. and E. E. Quinlan. SURVIVAL OF *EDWARDSIELLA ICTALURI* IN POND WATER AND BOTTOM MUD. *Prog. Fish-Cult.* 48(3):212-214. 1986. FR 32(1)
[Dep. Fish. Allied Aquacult., Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

BACTERIAL DISEASES (CONTINUED)

87-000713 Plumb, J. A.; M. L. Wise and W. A. Rogers. MODULARY EFFECTS OF TEMPERATURE ON ANTIBODY RESPONSE AND SPECIFIC RESISTANCE TO CHALLENGE OF CHANNEL CATFISH, *ICTALURUS PUNCTATUS*, IMMUNIZED AGAINST *EDWARDSIELLA ICTALURI*. *Vet. Immunol. Immunopathol.* 12(1-4):297-304. 1986. FR 32(1)
[Ala. Agric. Exp. Stn., Auburn Univ., AL 36849]

87-000714 Pourreau, C. N.; D. Evenberg; W. M. De Raadt; J. A. N. Van Mechelen and W. B. Van Muiswinkel. DOES *AEROMONAS SALMONICIDA* AFFECT THE IMMUNE SYSTEM OF CARP, *CYPRINUS CARPIO* L.? *Vet. Immunol. Immunopathol.* 12(1-4):331-338. 1986. FR 32(1)
[Dep. Exp. Anim. Morphol. Cell Biol., Agric. Univ., P.O. Box 338, 6700 AH Wageningen, Netherlands]

87-000715 Rodgers, C. J. and B. Austin. ORAL IMMUNISATION AGAINST FURUNCULOSIS: AND EVALUATION OF TWO FIELD TRIALS. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 185-194. FR 32(1)
[Dir. Fish. Res., Fish. Dis. Lab. Weymouth, Dorset DT4 8UB, England]

87-000716 Ruangpan, L.; T. Kitao and T. Yoshida. PROTECTIVE EFFICACY OF *AEROMONAS HYDROPHILA* VACCINES IN NILE TILAPIA. *Vet. Immunol. Immunopathol.* 12(1-4):345-350. 1986. FR 32(1)
[Brackishwater Fish. Div., Kasetsart Univ. Campus, Bangkok - 10900, Thailand]

87-000717 Sakai, D. K.; M. Nagata; T. Iwami; N. Koide; Y. Tamiya; Y. Ito and M. Atoda. ATTEMPT TO CONTROL BKD BY DIETARY MODIFICATION AND ERYTHROMYCIN CHEMOTHERAPY IN HATCHERY-REARED MASU SALMON *ONCORHYNCHUS MASOU* BREVOORT. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1141-1147. 1986. FR 32(1)
[Hokkaido Fish Hatchery, Kitakashiwagi 3-373, Eniwa 061-14, Japan]

87-000718 Salati, F. and R. Kusuda. CHEMICAL COMPOSITION OF THE LIPOPOLYSACCHARIDES FROM *VIBRIO ANGUILLARUM* AND *VIBRIO ORDALII*. *Fish Pathol.* 21(3):193-199. 1986. FR 32(1)
[Fish. Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

87-000719 Salati, F. and R. Kusuda. IMMUNE RESPONSE OF EEL TO *EDWARDSIELLA TARDA* LIPID. *Fish Pathol.* 21(3):201-205. 1986. FR 32(1)
[Fish Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

87-000720 Stolen, J. S.; T. Gahn; V. Kasper and J. J. Nagle. NATURAL AND ADAPTIVE IMMUNITY IN MARINE TELEOSTS TO BACTERIAL ISOLATES FROM SEWAGE SLUDGE. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 207-220. FR 32(1)
[NMFS, Sandy Hook Lab., Highlands, NJ 07732]

87-000721 Tajima, K.; Y. Ezura and T. Kimura. [SEROLOGICAL TYPING OF THERMOSTABLE ANTIGENS OF *V. ANGUILLARUM* - I *V. ANGUILLARUM* O-SEROTYPES (J-O-1~J-O-3).] *Bull. Fac. Fish. Hokkaido Univ.* 37(3):230-239. 1986. In Japanese with English summ. FR 32(1)
[Lab. Microbiol., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

BACTERIAL DISEASES (CONTINUED)

87-000722 Tajima, K.; Y. Ezura and T. Kimura. [SEROLOGICAL TYPING OF THERMOSTABLE ANTIGENS OF *V. ANGUILLARUM* - II *V. ANGUILLARUM* O-SEROTYPES (J-O-4~J-O-8).] *Bull. Fac. Fish. Hokkaido Univ.* 37(3):240-245. 1986. In Japanese with English summ. FR 32(1)
[Lab. Microbiol., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000723 Wakabayashi, H.; M. Hikida and K. Masumura. FLEXIBACTER MARTIMUS SP. NOV., A PATHOGEN OF MARINE FISHES. *Int. J. Syst. Bacteriol.* 36(3): 396-398. 1986. From Vet. Bull. 56(11):966. 1986. FR 32(1)
[Dep. Fish., Univ. Tokyo, Tokyo 113, Japan]

87-000724 Ward, P. D.; M. F. Tatner and M. T. Horne. FACTORS INFLUENCING THE EFFICACY OF VACCINES AGAINST VIBRIOSIS CAUSED BY *VIBRIO ANGUILLARUM*. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 221-229. FR 32(1)
[Dep. Bacteriol., Wellcome Res. Lab., Beckenham, Kent, England]

FUNGAL DISEASES

87-000725 Davies, D. H. and R. Lawson. SERUM PRECIPITINS OF THE ATLANTIC SALMON *SALMO SALAR*, AND THEIR POSSIBLE ROLE IN IMMUNOLOGICAL DEFENCE. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 123-132. FR 32(1)
[Dep. Biol., Univ. Salford, U.K.]

87-000726 Olson, R. E. *ICHTHYOPHONUS* INFECTION IN A PACIFIC STAGHORN SCULPIN *(LEPTOCOTTUS ARMATUS)* FROM OREGON. *J. Wildl. Dis.* 22(4):566-569. 1986. FR 32(1)
[Dep. Fish. Wildl., Hatfield Mar. Sci. Cent., Oreg. State Univ., Newport 97365]

PROTOZOAN DISEASES

87-000727 Athanassopoulou-Raptopoulou, F. and J. Vlemmas. *EIMERIA SCARDINII* PELLERDY AND MOLNAR, 1968 IN THE KIDNEYS OF *RUTILUS RUTILUS* (L.) AND *SCARDINIUS ERYTHROPHTHALMUS* (L.) FROM NORTHERN GREECE. *J. Fish Dis.* 9(5):411-416. 1986. FR 32(1)
[Dep. Ichthyol. Fish Pathol., Sch. Vet. Sci., Univ. Thessaloniki, P.O. Box 395, Greece]

87-000728 Bauer, O. N. DERMOCYSTIDIUM INFECTIONS OF CULTURED FISHES. *Symp. Biol. Hung.* 23:181-185. 1984. FR 32(1)
[Zool. Inst., USSR Acad. Sci., Leningrad, USSR]

87-000729 Bucsek, J. M. and G. Csaba. ULTRASTRUCTURAL OBSERVATIONS ON A CARP BLOOD PARASITE OF UNCERTAIN TAXONOMIC POSITION. *Symp. Biol. Hung.* 23:137-147. 1984. FR 32(1)
[Cent. Vet. Inst., Budapest, Hungary]

87-000730 Burreson, E. M. and L. J. Frizzell. THE SEASONAL ANTIBODY RESPONSE IN JUVENILE SUMMER FLOUNDER (*PARALICHTHYS DENTATUS*) TO THE HEMOFLAGELLATE *TRYPANOPLASMA BULLOCKI*. *Vet. Immunol. Immunopathol.*

PROTOZOAN DISEASES (CONTINUED)

87-000730 CONTINUED 12(1-4):395-402. 1986. FR 32(1)
[Va. Inst. Mar. Sci., Coll. William and Mary, Glocester Point, VA 23062]

87-000731 Crawshaw, M. T. and R. A. Sweeting. *MYXOBOLUS KOI* KUDO, 1919: A NEW RECORD FOR BRITAIN. *J. Fish Dis.* 9(5):465-467. 1986. FR 32(1)
[R. Sweeting: Thames Water, Nugent House, Vastern Rd., Reading RG1 8DB, England]

87-000732 Dickerson, H. W.; D. L. Evans and J. B. Gratzek. PRODUCTION AND PRELIMINARY CHARACTERIZATION OF MURINE MONOCLONAL ANTIBODIES TO *ICHTHYOPHTHIRIUS MULTIFILIIS*, A PROTOZOAN PARASITE OF FISH. *Am. J. Vet. Res.* 47(11):2400-2404. 1986. FR 32(1)
[Dep. Med. Microbiol., Coll. Vet. Med., Univ. Ga., Athens 30602]

87-000733 Hatai, K.; S. S. Kubota; N. Kida; S. Udagawa. *FUSARIUM OXYSPORUM* IN RED SEA BREAM (*PAGRUS* SP.). *J. Wildl. Dis.* 22(4):570-571. 1986. FR 32(1)
[Nippon Vet. Zootech. Coll., 1-7-1 Kyonan Cho, Musashino, Tokyo 180, Japan]

87-000734 Hoffman, G. L. TWO FISH PATHOGENS, *PARVICAPSULA* SP. AND *MITRASPORA CYPRINI* (MYXOSPOREA) NEW TO NORTH AMERICA. *Symp. Biol. Hung.* 23:127-135. 1984. FR 32(1)
[U.S. FWS, Fish Farm. Exp. Stn., Struttgart, AR 72160]

87-000735 Houghton, G. and R. A. Matthews. IMMUNOSUPPRESSION OF CARP (*CYPRINUS CARPIO* L.) TO ICHTHYOPHTHIRIASIS USING THE CORTICOSTEROID TRIAMCINOLONE ACETONIDE. *Vet. Immunol. Immunopathol.* 12(1-4):413-419. 1986. FR 32(1)
[Dep. Biol. Sci., Plymouth Polytech., Plymouth, Devon, PL4 8AA, England]

87-000736 Jones, S. R. M.; P. T. K. Woo and R. M. W. Stevenson. IMMUNOSUPPRESSION IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, CAUSED BY THE HAEMOFLAGELLATE *CRYPTOBIA SALMOSITICA* KATZ, 1951. *J. Fish Dis.* 9(5):431-438. 1986. FR 32(1)
[P.T.K. Woo: Dep. Zool., Univ. Guelph, Guelph, ON, Canada]

87-000737 Kent, M. L. and R. P. Hedrick. DEVELOPMENT OF THE PKX MYXOSPOREAN IN RAINBOW TROUT *SALMO GAIRDNERI*. *Dis. Aquat. Organ.* 1(3):169-182. 1986. FR 32(1)
[R.P. Hedrick: Dep. Med., Sch. Vet. Med., Univ. Calif., Davis 95616]

87-000738 Klontz, G. W.; A. W. Rourke and W. Eckblad. THE IMMUNE RESPONSE DURING PROLIFERATIVE KIDNEY DISEASE IN RAINBOW TROUT: A CASE HISTORY. *Vet. Immunol. Immunopathol.* 12(1-4):387-393. 1986. FR 32(1)
[Dep. Fish Wildl. Resour., Univ. Idaho, Moscow 83843]

87-000739 Kozel, T. R. SCANNING ELECTRON MICROSCOPY OF THERONTS OF *ICHTHYOPHTHIRIUS MULTIFILIIS*: THEIR PENETRATION INTO HOST TISSUES. *Trans. Am. Microsc. Soc.* 105(4):357-364. 1986. FR 32(1)
[Dep. Biol. Life Sci., Box 20483, Savannah State Coll., Savannah, GA 31404]

PROTOZOAN DISEASES (CONTINUED)

87-000740 Laudan, R.; J. S. Stolen and A. Cali. THE IMMUNE RESPONSE OF MARINE TELEOST, *PSEUDOPLEURONECTES AMERICANUS* (WINTER FLOUNDER) TO THE PROTOZOAN PARASITE *GLUGEA STEPHANI*. *Vet. Immunol. Immunopathol.* 12(1-4):403-412. 1986. FR 32(1)
[Dep. Zool. Physiol., Rutgers Univ., Newark, NJ 07107]

87-000741 Lom, J. and I. Dykova. PATHOGENICITY OF SOME PROTOZOAN PARASITES OF CYPRINID FISHES. *Symp. Biol. Hung.* 23:99-118. 1984. FR 32(1)
[Inst. Parasitol., Czech. Acad. Sci., Prague, Czechoslovakia]

87-000742 McCallum, H. I. ACQUIRED RESISTANCE OF BLACK MOLLIES *POECILIA LATIPINNA* TO INFECTION BY *ICHTHYOPHTHIRIUS MULTIFLIIS*. *Parasitology* 93(2):251-261. 1986. FR 32(1)
[Dep. Zool., Univ. Queensland, St. Lucia 4067, Australia]

87-000743 Miyazaki, T.; S. S. Kubota and K. Kamiya. [A HISTOPATHOLOGICAL STUDY ON ICHTYOBODOSIS OF THE CARP.] *Fish Pathol.* 21(3):209-210. In Japanese. FR 32(1)

87-000744 Molnar, K. SOME PECULIARITIES OF OOCYST REJECTION OF FISH COCCIDIA. *Symp. Biol. Hung.* 23:87-97. 1984. FR 32(1)
[Vet. Med. Res. Inst., Hungarian Acad. Sci., Budapest, Hungary]

87-000745 Morado, J. F. and A. Sparks. OBSERVATIONS ON THE HOST-PARASITE RELATIONS OF THE PACIFIC WHITING, *MERLUCCIUS PRODUCTUS* (AYRES), AND TWO MYXOSPOREAN PARASITES, *KUDOA THYRSITIS* (GILCHRIST, 1924) AND *K. PANIFORMIS* KABATA & WHITAKER, 1981. *J. Fish Dis.* 9(5):445-455. 1986. FR 32(1)
[NMFS, 7600 Sand Point Way N.E., Seattle, WA 98115]

87-000746 Poynton, S. L. DISTRIBUTION OF THE FLAGELLATE *HEXAMITA SALMONIS* MOORE, 1922 AND THE MICROSPORIDIAN *LOMA SALMONAE* PUTZ, HOFFMAN AND DUNBAR, 1965 IN BROWN TROUT, *SALMO TRUTTA* L., AND RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, IN THE RIVER ITCHEN (U.K.) AND THREE OF ITS FISH FARMS. *J. Fish Biol.* 29(4):417-429. 1986. FR 32(1)
[Dep. Zool., Univ. Oxford, South Parks Rd., Oxford OX1 3PS, U.K.]

87-000747 Price, D. J. and L. M. Bone. MATERNAL EFFECTS AND RESISTANCE TO INFECTION BY *ICHTHYOPHTHIRIUS MULTIFILIIS* IN *XIPHOPHORUS MACULATUS*. *IN: M. J. Manning and M. F. Tatner, eds. Fish Immunology. Academic Press, 1985.* p. 233-244. FR 32(1)
[Dep. Biol. Sci., Plymouth Polytech., Drake Circus, Plymouth PL4 8AA, England]

87-000748 Seenappa, D.; L. Mahonar and H. P. C. Shetty. CONTROL OF *MYXOBOLUS VANIVILASAE* (MYXOSPORIDA: PROTOZOA) IN SIMULATED PONDS BY DRYING AND DISINFECTION. *Mysore J. Agric. Sci.* 18(4):305-307. 1984. FR 32(1)
[Reg. Res. Stn., V.C. Farm, Mandya, USSR]

87-000749 Takvorian, P. M. and A. Cali. THE ULTRASTRUCTURE OF SPORES (PROTOZOA: MICROSPORIDA) FORM *LOPHIUS AMERICANUS*, THE ANGLER FISH. *J. Protozool.* 33(4):570-575. 1986. FR 32(1)
[Dep. Biol., Rutgers Univ., Newark, NJ 07102]

PROTOZOAN DISEASES (CONTINUED)

87-000750 Wikerhauser, T. [WHO IS WHO IN THE PARASITIC FAUNA OF MARINE FISHES: *ANISAKIS* AND *KUDOA*.] *Prax. Vet.* 33(5-6):365-372. 1986. In Serbo-Croatian with English summ. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 55(10):383. 1986. FR 32(1)
[Vet. Fac., Zegreb, Yugoslavia]

VIRAL DISEASES

87-000751 Ahne, W. IMPORTANT VIRAL DISEASES IN EUROPEAN FISH CULTURES. *Symp. Biol. Hung.* 23:3-15. 1984. FR 32(1)
[Inst. Zool. Hydrobiol., Univ. Munich, West Germany]

87-000752 Ahne, W. THE INFLUENCE OF ENVIRONMENTAL TEMPERATURE AND INFECTION ROUTE ON THE IMMUNE RESPONSE OF CARP. *Vet. Immunol. Immunopathol.* 12(1-4):383-386. 1986. FR 32(1)
[Inst. Zool. Hydrobiol., Univ. Munich, Kamlbochstr. 37, D-8000 Munchen 22, West Germany]

87-000753 Bekesi, L.; E. Kovacs-Gayer; F. Ratz and O. Turkovics. SKIN INFECTION OF THE SHEATFISH (*SILURUS GLANIS* L.) CAUSED BY A HERPES VIRUS. *Symp. Biol. Hung.* 23:25-30. 1984. FR 32(1)
[Cent. Vet. Inst., Budapest, Hungary]

87-000754 Bootland, L. M.; P. Dobos and R. M. W. Stevenson. EXPERIMENTAL INDUCTION OF THE CARRIER STATE IN YEARLING BROOK TROUT: A MODEL CHALLENGE PROTOCOL FOR IPNV IMMUNIZATION. *Vet. Immunol. Immunopathol.* 12(1-4): 365-372. 1986. FR 32(1)
[Dep. Microbiol., Coll. Biol. Sci., Univ. Guelph, Guelph, ON N1G 2W1 Canada]

87-000755 Bowser, P. R. and A. D. Munson. SEASONAL VARIATION IN CHANNEL CATFISH VIRUS ANTIBODY TITERS IN ADULT CHANNEL CATFISH. *Prog. Fish-Cult.* 48(3):198-199. 1986. FR 32(1)
[Dep. Avian Aquat. Anim. Med., N.Y. State Coll. Vet. Med., Cornell Univ., Ithaca, NY 14853]

87-000756 De Kinkelin, P. DIAGNOSIS OF VIRUS DISEASES OF FISH. *In: IVth Int. Symp. Vet. Lab. Diagnosticians, 2-6 June 1986. Abstracts.* From Vet. Bull. 56(10):928. 1986. FR 32(1)
[INRA Lab. Pathol. Poissons, F-78850 Thiverval-Grignon, France]

87-000757 Elger, B.; M. Neukirch and H. Hentschel. THE KIDNEY OF RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, IN THE ACUTE PHASE OF VIRAL HAEMORRHAGIC SEPTICAEMIA: *IN VIVO* EXPERIMENTS ON THE RENAL EXCRETION OF FLUID ELECTROLYTES AND PROTEIN. *J. Fish Dis.* 9(5):381-392. 1986. FR 32(1)
[Zent. Innere Med., Abt. Nephrol., Med. Hochschule Hannover, West Germany]

87-000758 Fijan, N.; Z. Matasin; Z. Jeney; J. Olah. and L. O. Zwillenberg. ISOLATION OF *RHABDOVIRUS CARPIO* FROM SHEATFISH (*SILURUS GLANIS*) FRY. *Symp. Biol. Hung.* 23:17-24. 1984. FR 32(1)
[Dep. Biol. Pathol. Fish Bees, Vet. Fac., Zagneb, Yugoslavia]

VIRAL DISEASES (CONTINUED)

87-000759 Gorie, S. and K. Nakamoto. [PATHOGENICITY OF A VIRUS ISOLATED FROM HIRAME (JAPANESE FLOUNDER).] *Fish Pathol.* 21(3):177-180. 1986. In Japanese with English summ. FR 32(1)
[Hyogo Pref. Fish. Exp. Stn., Nakasaki 1-6-8, Akashi, Hyogo, Japan]

87-000760 Hayashi, Y.; H. Kodama; K. Ishigaki; T. Mikami; H. Izawa and D. K. Sakai. CHARACTERISTICS OF A NEW HERPESVIRAL ISOLATE FROM SALMONID FISH. *Jpn. J. Vet. Sci.* 48(5):915-924. 1986. FR 32(1)
[Dep. Epizootiol., Fac. Vet. Med., Hokkaido Univ., Sapporo 060, Japan]

87-000761 Hedrick, R. P.; W. D. Eaton; J. L. Fryer; W. G. Groberg, Jr. and S. Boonyaratapalin. CHARACTERISTICS OF A BIRNAVIRUS ISOLATED FROM CULTURED SAND GOBY *(OXYELEOTRIS MARMORATUS). Dis. Aquat. Organ.* 1(3):219-225. 1986. FR 32(1)
[Aquacult. Prog., Dep. Med., Sch. Vet. Med., Univ. Calif., Davis 95616]

87-000762 Humphrey, J.; J. Copland; R. Carolane; N. Gudkovs and C. Whiting. THE VIRAL DISEASE STATUS OF AUSTRALIAN FRESHWATER SALMONID HATCHERIES. *IN: A. J. Della-Porta, ed. Veterinary Viral Diseases, Their Signi*ᶜ*icance in South-East Asia and the Western Pacific. 1985* p. 543-544. From Vet. Bull. 56(11):996. 1986. FR 32(1)
[Natl. Fish Health Lab., P.O. Box 388, Benalla, Vic. 3672, Australia]

87-000763 Kimura, T.; M. Yishimizu and S. Gorie. A NEW RHABDOVIRUS ISOLATED IN JAPAN FROM CULTURED HIRAME (JAPANESE FLOUNDER) *PARALICHTHYS OLIVACEUS* AND AYU *PLECOGLOSSUS ALTIVELIS. Dis. Aquat. Organ.* 1(3):209-217. 1986. FR 32(1)
[Lab. Microbiol., Fac. Fish., Hokkaido Univ., Minato, Hakodate 041, Japan]

87-000764 Knott, R. M. and A. L. S. Munro. THE PERSISTENCE OF INFECTIOUS PANCREATIC NECROSIS VIRUS IN ATLANTIC SALMON. *Vet. Immunol. Immunopathol.* 12(1-4):359-364. 1986. FR 32(1)
[Mar. Lab., Victoria Rd., P.O. Box 101, Aberdeen AB9 8DB, Scotland]

87-000765 Lowe-Jinde, L. HEMATOLOGICAL CHANGES IN CRYPTOBIA-INFECTED RAINBOW TROUT (*SALMO GAIRDNERI*). *Can. J. Zool.* 64(6):1352-1355. 1986. In English with French summ. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000766 McAllister, P. E. and W. B. Schill. IMMUNOBLOT ASSAY: A RAPID AND SENSITIVE METHOD FOR IDENTIFICATION OF SALMONID FISH VIRUSES. *J. Wildl. Dis.* 22(4):468-474. 1986. FR 32(1)
[U.S. FWS, Natl. Fish Health Res. Lab., Box 700, Kearneysville, WV 25430]

87-000767 Mulcahy, D. M. and R. J. Pascho. SEQUENTIAL TESTS FOR INFECTIOUS HEMATOPOIETIC NECROSIS VIRUS IN INDIVIDUALS AND POPULATIONS OF SOCKEYE SALMON *(ONCORHYNCHUS NERKA). Can. J. Fish. Aquatic Sci.* 43(12):2515-2519. 1986. In English with French summ. FR 32(1)
[U.S. FWS, 6006 Schroeder Rd., Madison, WI 53711]

87-000768 Neukirch, M. DEMONSTRATION OF PERSISTENT VIRAL HAEMORRHAGIC SEPTICAEMIA (VHS) VIRUS IN RAINBOW TROUT AFTER EXPERIMENTAL WATERBORNE INFECTION. *J. Vet. Med.* 33(6):471-476. 1986. In English with German summ. FR 32(1)
[Fachgeb. Fischkrankheit, u. Fischhalt., Tierarztl. Hochsch. Hannover, Bischofsholer Damm 15, D-3000 Hannover 1, West Germany]

VIRAL DISEASES (CONTINUED)

87-000769 Ono, S.; A. Nagai and N. Sugai. A HISTOPATHOLOGICAL STUDY ON JUVENILE COLORCARP, *CYPRINUS CARPIO*, SHOWING EDEMA. *Fish Pathol.* 21(3):167-175. 1986. FR 32(1)
[Fac. Mar. Sci. Technol., Tokai Univ., 3-20-1, Orido, Shimizu, Shizuoka 424, Japan]

87-000770 Parsons, J. E.; R. A. Busch; G. H. Thorgaard and P. D. Sheerer. INCREASED RESISTANCE OF TRIPLOID RAINBOW TROUT X COHO SALMON HYBRIDS TO INFECTIOUS HEMATOPOIETIC NECROSIS VIRUS. *Aquaculture* 57(1-4):337-343. 1986. FR 32(1)
[Clear Springs Trout Co., Buhl, ID 83316]

87-000771 Shchelkunov, I. S. and T. I. Shchelkunova. RESULTS OF VIROLOGICAL STUDIES OF GILL NECROSIS. *Symp. Biol. Hung.* 23:31-43. 1984. FR 32(1)
[All-Union Res. Inst. Pond Fish., Moscow, Rybnoe, USSR]

87-000772 Wechsler, S. J.; P. E. McAllister; F. M. Hetrick and D. P. Anderson. EFFECT OF EXOGENOUS CORTICOSTEROIDS ON CIRCULATING VIRUS AND NEUTRALIZING ANTIBODIES IN STRIPED BASS (*MORONE SAXATILIS*) INFECTED WITH INFECTIOUS PANCREATIC NECROSIS VIRUS. *Vet. Immunol. Immunopathol.* 12(1-4):305-311. 1986. FR 32(1)
[Coop. Fish. Wildl. Res. Unit, 117 Nervins-Ziegler, Univ. Fla., Gainesville 32611]

87-000773 Wechsler, S. J.; C. L. Schultz; P. E. McAllister; E. B. May and F. M. Hetrick. INFECTIOUS PANCREATIC NECROSIS VIRUS IN STRIPED BASS *MORONE SAXATILIS*: EXPERIMENTAL INFECTION OF FRY AND FINGERLINGS. *Dis. Aquat. Organ.* 1(3):203-208. 1986. FR 32(1)
[Fla. Coop. Fish Wildl. Res. Unit, 117 Newins-Ziegler, Univ. Fla., Gainesville 32611]

87-000774 Wolski, S. C.; B. S. Roberson and F. M. Hetrick. MONOCLONAL ANTIBODIES TO THE SP STRAIN OF INFECTIOUS PANCREATIC NECROSIS VIRUS. *Vet. Immunol. Immunopathol.* 12(1-4):373-381. 1986. FR 32(1)
[Microbiol. Dep., Univ. Md., College Park 20742]

OTHER DISEASES AND PARASITES

87-000775 Akiyama, T.; T. Murai and T. Nose. ORAL ADMINISTRATION OF SEROTONIN AGAINST SPINAL DEFORMITY OF CHUM SALMON FRY INDUCED BY TRYTOPHAN DEFICIENCY. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1249-1254. 1986. FR 32(1)
[Fish. Nutr. Div., Natl. Res. Inst. Aquacult., Nansei, Mie 516-01, Japan]

87-000776 Akiyama, T.; T. Murai and K. Mori. ROLE OF TRYTOPHAN METABOLITES IN INHIBITION OF SPINAL DEFORMITY OF CHUM SALMON FRY CAUSED BY TRYTOPHAN DEFICIENCY. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1255-1259. 1986. FR 32(1)
[Fish. Nutr. Div., Natl. Res. Inst. Aquacult., Nansei, Mie 516-01, Japan]

87-000777 Amin, O. M. ACANTHOCEPHALA FROM LAKE FISHES IN WISCONSIN: MORPHOMETRIC GROWTH OF *NEOECHINORHYNCHUS CYLINDRATUS* (NEOECHINORHYNCHIDAE) AND TAXONOMIC IMPLICATIONS. *Trans. Am. Microsc. Soc.*

OTHER DISEASES AND PARASITES (CONTINUED)

87-000777 CONTINUED 105(4):375-380. 1986. FR 32(1)
[Dep. Biol. Sci., Univ. Wis., P.O. Box 2000, Kenosha 53141]

87-000778 Amin, O. M. ON THE SPECIES AND POPULATIONS OF THE GENUS *ACANTHOCEPHALUS* (ACANTHOCEPHALA: ECHINORHYNCHIDAE) FROM NORTH AMERICAN FRESHWATER FISHES: A CLADISTIC ANALYSIS. *Proc. Biol. Soc. Wash.* 99(4):574-579. 1986. FR 32(1)
[Dep. Biol. Sci., Univ. Wis.-Parkside, Box 2000, Kenosha 53141]

87-000779 Avenant, A. and J. G. Van As. OBSERVATIONS ON THE SEASONAL OCCURRENCE OF THE FISH ECTOPARASITE *DOLOPS RANARUM* (STUHLMANN, 1891) (CRUSTACEA: BRANCHIURA) IN THE TRANSVAAL. *S. Afr. J. Wildl. Res.* 16(2):62-64. 1986. FR 32(1)
[J. G. van As: Res. Unit Fish Biol., Rand Afrikaans Univ., P.O. Box 524, Johannesburg, 2000 South Africa]

87-000780 Balouet, G. and F. Baudin Laurencin. GRANULOMATOUS NODULES IN FISH: AN EXPERIMENTAL ASSESSMENT IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, AND TURBOT, *SCOPHTHALMUS MAXIMUS* (L.). *J. Fish Dis.* 9(5):417-429. 1986. FR 32(1)
[Lab. Pathol., Fac. Med., Brest, France]

87-000781 Brinkman, A., Jr. THE PARASITIC COPEPOD *ANTHEACHERES DUEBENI* M. SARS 1857 AND ITS RELATIVES. *Sarsia* 71(3-4):297-304. 1986. FR 32(1)
[Zool. Lab., Univ. Bergen, Allegaten 41, N-5000 Bergen, Norway]

87-000782 Byrnes, T. and R. Cressey. A REDESCRIPTION OF *COLOBOMATUS MYLIONUS* FUKUI FROM AUSTRALIAN *ACANTHOPAGRUS* (SPARIDAE) (CRUSTACEA: COPEPODA: PHILICHTHYIDAE). *Proc. Biol. Soc. Wash.* 99(3):388-391. 1986. FR 32(1)
[69 Louis Dr., Farmingdale, NY 11735]

87-000783 Conroy, D. A.; G. Conroy and A. Rodriguez. A NOTE ON THE OCCURRENCE OF *LERNAEENICUS LONGIVENTRIS* WILSON, 1917 (CRUSTACEA, COPEPODA, LERNAEOCERIDAE) AS A PARASITE OF THE SILVER MULLET (*MUGIL CUREMA* VALENCIENNES, 1836) FROM CHICHIRIVICHE AND PATANEMO COVES, VENEZUELA. *Riv. Ital. Piscic. Ittiop.* 21(3):113-117. 1986. In Italian with English summ. FR 32(1)
[Secc. Ictiopatol., Fac. Cienc. Vet., Univ. Cent. Venezuela, Apt. Correo N.4563, Maracay 2101, Estado Aragua, Venezuela]

87-000784 Conroy, G. and D. A. Conroy. FIRST RECORDS OF SOME DIGENETIC TREMATODES OCCURRING AS INTESTINAL PARASITES OF THE SILVER MULLET (*MUGIL CUREMA* VAL., 1836) IN VENEZUELA. *Riv. Ital. Piscic. Ittiop.* 21(3):100-106. 1986. In Italian with English summ. FR 32(1)
[Secc. Ictiopatol., Fac. Cienc. Vet., Univ. Cent. Venezuela, Apt. Correo N. 4563, Maracay 2101, Estado Aragua, Venezuela]

87-000785 Conroy, G.; D. A. Conroy and A. Rodriguez. A REPORT ON *METAMICROCOTYLA MACRACANTHA* (MONOGENEA, MONOPISTHOCOTYLEA, MICOCOTYLIDAE) AS A GILL PARASITE OF THE SILVER MULLET (*MUGIL CUREMA* VALENCIENNES, 1836)

OTHER DISEASES AND PARASITES (CONTINUED)

87-000785 CONTINUED IN VENEZUELA. *Riv. Ital. Piscic. Ittiop.* 21(3):118-120. 1986. In Italian with English summ. FR 32(1)
[Secc. Ictiopatol., Fac. Cienc. Vet., Univ. Cent. Venezuela, Apt. Correo N.4563, Maracay 2101, Estado Aragua, Venezuela]

87-000786 Ferguson, H. W.; D. A. Rice and J. K. Lynas. CLINICAL PATHOLOGY OF MYODEGENERATION (PANCREAS DISEASES) IN ATLANTIC SALMON (*SALMO SALAR*). *Vet. Rec.* 119(20):297-299. 1986. FR 32(1)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, U.K.]

87-000787 Grigoryan, D. A. [STUDY OF THE *DACTYLOGYRUS* FAUNA IN THE WATERBODIES OF THE ARMENIAN SSR.] *Biol. Zh. Arm.* 38(6):541-545. 1985. In Russian. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 55(10):382. 1986. FR 32(1)
[Erevanskii Gosudarstrennyi Univ., Erevan, Armenian SSR, USSR]

87-000788 Hogans, W. E. *PAEONOCANTHUS ANTARCTICENSIS* (COPEPODA: SPHYRIIDAE) PARASITIC ON THE BATHYPELAGIC FISH *BATHYLAGUS EURYOPS* IN THE NORTHWEST ATLANTIC OCEAN. *Sarsia* 71(3-4):305-307. 1986. FR 32(1)
[Huntsman Mar. Lab., St. Andrews, NB E0G 2X0, Canada]

87-000789 Hogans, W. E. and P. C. F. Hurley. VARIATIONS IN THE MORPHOLOGY OF *FISTICOLA PLICATUS* RUDOLPHI (1802) (CESTODA: PSEUDOPHYLLIDEA) FROM THE SWORDFISH, *XIPHIAS GLADIUS* L., IN THE NORTHWEST ATLANTIC OCEAN. *NOAA Fish. Bull.* 84(3):754-757. 1986. FR 32(1)
[Biol. Stn., St. Andrews, NS E0G 2X0, Canada]

87-000790 Hogans, W. E. and D. J. Trudeau. OCCURRENCE OF *CLAVELLODES RUGOSA* (COPEPODA: LERNAEOPODIDAE) ON THE OCEAN POUT, *MACROZOARCES AMERICANUS* IN THE NORTHWEST ATLANTIC OCEAN. *Proc. N.S. Inst. Sci.* 35(3-4):109-110. 1985. FR 32(1)
[Huntsman Mar. Lab., St. Andrews, NB E0G 2X0, Canada]

87-000791 Kovacs-Gayer, E. HISTOPATHOLOGICAL DIFFERENTIAL DIAGNOSIS OF GILL CHANGES WITH SPECIAL REGARD TO GILL NECROSIS. *Symp. Biol. Hung.* 23:219-229. 1984. FR 32(1)
[Cent. Vet. Inst., Budapest, Hungary]

87-000792 Kritsky, D. C.; W. A. Boeger and V. E. Thatcher. NEOTROPICAL MONOGENEA. 9. STATUS OF *TRINIGYRUS* HANEK, MOLINAR, AND FERNANDO, 1974 (DACTYLOGYRIDAE) WITH DESCRIPTIONS OF TWO NEW SPECIES FROM LORICARIID CATFISHES FROM THE BRAZILIAN AMAZON. *Proc. Biol. Soc. Wash.* 99(3):392-398. 1986. FR 32(1)
[Idaho Mus. Nat. Hist., Idaho State Univ., Box 8002, Pocatello 83209]

87-000793 Masoero, L. and G. Forneris. [FIRST STUDY ON LIVER PARASITOSIS BY *CAPILLARIA PETRUSCHEWSKII* FOUND IN *SALMO TRUTTA MARMORATUS* IN PO RIVER, PIEDMONT, ITALY.] *Riv. Ital. Piscic. Ittiop.* 21(3):97-99. 1986. In Italian with English summ. FR 32(1)
[Zoopr. Sper. Piemonte Liguria e Valle d'Aosta, Via Bologna 148, Torino, Italy]

87-000794 Matskasi, I. THE EFFECT OF *BOTHRIOCEPHALUS ACHEILOGNATHI* INFECTION ON THE PROTEASE AND a-AMYLASE ACTIVITY IN THE GUT OF CARP FRY. *Symp. Biol. Hung.* 23:119-125. 1984. FR 32(1)
[Vet. Res. Inst., Hungarian Acad. Sci., Budapest, Hungary]

OTHER DISEASES AND PARASITES (CONTINUED)

87-000795 Meyer-Burgdorff, V. K. H.; K. Becker and K. D. Gunther. M-INOSITOL: DEFICIENCY SYMPTOMS AND REQUIREMENTS OF GROWING MIRROR CARP (*CYPRINUS CARPIO* L.). *J. Anim. Physiol. Anim. Nutr.* 56(4):232-241. 1986. In German with English summ. FR 32(1)
[Inst. Tierphysiol. Tierernah., Oskar-Kellner-Weg B, D-3400 Gottingen-Weende, West Germany]

87-000796 Noronha, D.; J. J. Vicente; R. M. Pinto and S. P. De Fabio. *GORGORHYNCHUS TRACHINOTUS* N.SP. AND NEW HOST RECORDS FOR *DOLLFUSENTIS CHANDLERI* GOLVAN, 1969 (PALEACANTHOCEPHALA, ECHINORHYNCHOIDEA). *Mem. Inst. Oswaldo Cruz* 81(2):145-148. 1986. In English with Portuguese summ. FR 32(1)
[Inst. Oswaldo Cruz, Dep. Helminthol., Caixa Post. 926, 20001 Rio de Janeiro, RJ, Brazil]

87-000797 Peters, G. and F. Hartmann. *ANGUILLICOLA*, A PARASITIC NEMATODE OF THE SWIM BLADDER SPREADING AMONG EEL POPULATIONS IN EUROPE. *Dis. Aquat. Organ.* 1(3):229-230. 1986. FR 32(1)
[Inst. Hydrobiol. Fischereiwissensch. Univ. Hamburg, Olbersweg 24, D-2000 Hamburg 50, West Germany]

87-000798 Poppe, T. T.; T. Hastein; A. Froslie; N. Koppang and G. Norheim. NUTRITIONAL ASPECTS OF HAEMORRHAGIC SYNDROME ('HITRA DISEASE') IN FARMED ATLANTIC SALMON *SALMO SALAR*. *Dis. Aquat. Organ.* 1(3):155-162. 1986. FR 32(1)
[Natl. Vet. Inst., P.O. Box 8156, N-0033 Oslo 1, Norway]

87-000799 Roubal, F. R. THE HISTOPATHOLOGY OF THE COPEPOD, *ERGASILUS LIZAE* KROYER, ON THE PSEUDOBRANCHS OF THE TELEOST, *ACANTHOPAGRUS AUSTRALIS* (GUNTHER) (FAMILY SPARIDAE). *Zool. Anz.* 217(1-2):65-74. 1986. FR 32(1)
[Zool. Dep., Univ. New England, Armidale, Australia]

87-000800 Shariff, M.; Z. Kabata and C. Sommerville. HOST SUSCEPTIBILITY TO *LERNAEA CYPRINACEA* L. AND ITS TREATMENT IN A LARGE AQUARIUM SYSTEM. *J. Fish Dis.* 9(5):393-401. 1986. FR 32(1)
[Fac. Fish. Mar. Sci., Univ. Pertanian Malaysia, Serdang, Selangor, Malaysia]

87-000801 Swink, W. D. and L. H. Hanson. SURVIVAL FROM SEA LAMPREY *(PETROMYZON MARINUS)* PREDATION BY TWO STRAINS OF LAKE TROUT *(SALVELINUS NAMAYCUSH)*. *Can. J. Fish. Aquatic Sci.* 43(12):2528-2531. 1986. In English with French summ. FR 32(1)
[U.S. FWS, Hammond Bay Biol. Stn., Rt. 1, Box 441, Millersburg, MI 49759]

87-000802 Vicente, J. J.; H. de O. Rodrigues and D. C. Gomes. [NEMATODES OF BRAZIL. PART ONE: NEMATODES OF FISH.] *Atas Soc. Biol. Rio de Janeiro* 25:1-79. 1985. In Portuguese with English summ. From Helminthol. Abstr. Ser. A Anim. Human Helminthol. 55(10):383. 1986. FR 32(1)

87-000803 Weirowski, F. OCCURRENCE, SPREAD AND CONTROL OF *BOTHRIOCEPHALUS ACHEILOGNATHI* IN THE CARP PONDS OF THE GERMAN DEMOCRATIC REPUBLIC. *Symp. Biol. Hung.* 23:149-155. 1984. FR 32(1)
[Fish Health Serv. GDR, Berlin, East Germany]

OTHER DISEASES AND PARASITES (CONTINUED)

87-000804 West, G. A. *PARASHIINOA MACKAYI* GEN. NOV., SP. NOV. (POECILOSTOMATOIDA: SHIINOIDAE), A NEW PARASITIC COPEPOD FROM TWO AUSTRALIAN SPECIES OF *POMADASYS* (HAEMULIDAE). *J. Nat. Hist.* 20(6):1339-1345. 1986. FR 32(1)
[Dep. Parasitol., Univ. Queensland, St. Lucia, Qld. 4067, Australia]

POLLUTION

87-000805 Anestis, I. and R. J. Neufeld. AVOIDANCE-PREFERENCE REACTIONS OF RAINBOW TROUT (*SALMO GAIRDNERI*) AFTER PROLONGED EXPOSURE TO CHROMIUM(VI). *Water Res.* 20(10):1233-1241. 1986. FR 32(1)
[Fac. Eng., McGill Univ., 3480 University St., Montreal, PQ H3A 2A7, Canada]

87-000806 Angermeier, P. L. and J. R. Karr. APPLYING AN INDEX OF BIOTIC INTEGRITY BASED ON STREAM-FISH COMMUNITIES: CONSIDERATIONS IN SAMPLING AND INTERPRETATION. *N. Am. J. Fish. Manage.* 6(3):418-429. 1986. FR 32(1)
[Coop. Fish. Wildl. Res. Unit, VPI&SU, Blacksburg, VA 24061]

87-000807 Barghigiani, C.; D. Pellegrini; D. Gioffre; S. De Ranieri and R. Bargagli. PRELIMINARY RESULTS ON THE MERCURY CONTENT OF *CITHARUS LINGUATULA* (L.) IN THE NORTHERN TYRRHENIAN SEA. *Mar. Pollut. Bull.* 17(9):424-427. 1986. FR 32(1)
[Biophys. Inst., Ital. Res. Counc., Via San Lorenzo 26, 56100 Pisa, Italy]

87-000808 Berkman, H. E.; C. F. Rabeni and T. P. Boyle. BIOMONITORS OF STREAM QUALITY IN AGRICULTURAL AREAS: FISH VERUS INVERTEBRATES. *Environ. Monit.* 10(3):413-419. 1986. FR 32(1)
[Mo. Coop. Fish Wildl. Res. Unit, Sch. For. Fish. Wildl., Univ. Mo., Columbia 65211]

87-000809 Boon, J. P. and J. C. Duinker. MONITORING OF CYCLIC ORGANOCHLORINES IN THE MARINE ENVIRONMENT. *Environ. Minist. Assess.* 7(2):189-208. 1986. FR 32(1)
[Neth. Inst. Sea Res., P.O. Box 59, 1790 AB Den Burg, Texel, Netherlands]

87-000810 Bradt, P. T.; J. L. Dudley; M. B. Berg and D. S. Barrasso. BIOLOGY AND CHEMISTRY OF THREE PENNSYLVANIA LAKES: RESPONSES TO ACID PRECIPITATION. *Water Air Soil Pollut.* 30(1-2):505-513. 1986. FR 32(1)
[Cent. Mar. Environ. Stud., Chandler #17, Lehigh Univ., Bethlehem, PA 18015]

87-000811 Buergel, P. M. and R. A. Soltero. THE DISTRIBUTION AND ACCUMULATION OF ALUMINUM IN RAINBOW TROUT FOLLOWING A WHOLE-LAKE ALUM TREATMENT. *J. Freshwater Ecol.* 2(1):37-44. 1983. FR 32(1)

87-000812 Cravedi, J. P. and J. Tulliez. FATE OF A HYDROCARBON POLLUTION INDICATOR IN FISH: ABSORPTION, DEPOSITION AND DEPURATION OF SQUALANE IN *SALMO GAIRDNERI* R. *Environ. Pollut.* 42(3):247-259. 1986. FR 32(1)
[Lab. Rech. Add. Aliment., INRA, BP No. 3, 31931 Toulouse Cedex, France]

POLLUTION (CONTINUED)

87-000813 Facemire, C. F. EFFECTS OF AN URANIUM-RICH EFFLUENT STREAM ON SPECIES DIVERSITY IN GREAT MIAMI RIVER FISHES. *Prog. IV Int. Congr. Ecol.* p. 143. 1986. Abstract only. FR 32(1)
[Miami Univ., Oxford, OH 45056]

87-000814 FAO of the UN. PAPERS PRESENTED AT THE FAO/UNEP/WHO/IOC/IAEA MEETING ON THE BIOGEOCHEMICAL CYCLE OF MERCURY IN THE MEDITERRANEAN. *FAO Fish. Rep.* No. 325(Suppl.) vi+187p. 1986. FR 32(1)
[Rome, Italy]

87-000815 FAO of the UN. REPORT OF THE FAO/UNEP MEETING ON THE EFFECTS OF POLLUTION ON MARINE ECOSYSTE*FAO Fish. Rep.* No. 352. v+20p. 1986. FR 32(1)
[Rome, Italy]

87-000816 Fisher, D. J.; J. R. Clark; M. H. Roberts, Jr.; J. P. Connolly and L. H. Mueller. BIOACCUMULATION OF KEPONE BY SPOT *(LEIOSTOMUS XANTHURUXS)*: IMPORTANCE OF DIETARY ACCUMULATION AND INGESTION RATE. *Aquat. Toxicol.* 9(2-3):161-178. 1986. FR 32(1)
[Johns Hopkins Univ., Appl. Phys. Lab., Shady Side, MD 20764,

87-000817 Forbes, I. J. THE QUANTITY OF LEAD SHOT, NYLON FISHING LINE AND OTHER LITTER DISCARDED AT A COARSE FISHING LAKE. *Biol. Conserv.* 38(1): 21-34. 1986. FR 32(1)
[Anglian Water, Lincoln Div., Waterside House, P.O. Box 62, Waterside North, Lincoln LN2 5HA, U.K.]

87-000818 Frenette, J. J.; Y. Richard and G. Moreau. FISH RESPONSES TO ACIDITY IN QUEBEC LAKES: A REVIEW. *Water Air Soil Pollut.* 30(1-2):461-475. 1986. FR 32(1)
[Minist. Environ. Quebec, Dir. Releves Aquat., 3900 rue Marley, St. Foy, PQ G1X 4E4, Canada]

87-000819 Galassi, S. and M. Migliavacca. ORGANOCHLORINE RESIDUES IN RIVER PO SEDIMENT: TESTING THE EQUILIBRIUM CONDITION WITH FISH. *Ecotoxicol. Environ. Safety* 12(2):120-126. 1986. FR 32(1)
[Ist. Ricerca sulle Acque-CNR, Brugherio, Milan, Italy]

87-000820 Gunn, J. M. and D. L. G. Noakes. AVOIDANCE OF LOW pH AND ELEVATED Al CONCENTRATIONS BY BROOK CHARR *(SALVELINUS FONTINALIS)* ALEVINS IN LABORATORY TESTS. *Water Air Soil Pollut.* 30(1-2):497-503. 1986. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000821 Gunn, J. M. BEHAVIOUR AND ECOLOGY OF SALMONID FISHES EXPOSED TO EPISODIC pH DEPRESSIONS. *Environ. Biol. Fishes* 17(4):241-252. 1986. FR 32(1)
[Dep. Zool., Group Adv. Fish Stud., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000822 Hagel, P. MONITORING OF POLLUTANTS IN DUTCH FISHERY PRODUCTS. *Environ. Monit. Assess.* 7(3):257-262. 1986. FR 32(1)
[Neth. Inst. Fish. Invest., Haringkade 1, 1976 CP IJmuiden, Netherlands]

POLLUTION (CONTINUED)

87-000823 Hansson, S. EFFECTS OF EUTROPHICATION ON FISH COMMUNITIES WITH SPECIAL REFERENCE TO THE BALTIC SEA--A LITERATURE REVIEW. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 36-56. 1985. FR 32(1)
[Asko Lab., Univ. Stockholm, S-106 91 Stockholm, Sweden]

87-000824 Harvey, H. H.; G. A. Fraser and J. M. McArdle. BONE CONCENTRATION OF MANGANESE IN WHITE SUCKER *(CATOSTOMUS COMMERSONI)* FROM ACID, CIRCUMNEUTRAL AND METAL-STRESSED LAKES. *Water Air Soil Pollut.* 30(1-2):515-521. 1986. FR 32(1)
[Dep. Zool., Univ. Toronto, Toronto, ON M5S 1A1, Canada]

87-000825 Horn, E. G.; R. J. Sloan and L. C. Skinner. INSIGHTS FROM CONTAMINATED FISH IN NEW YORK. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:384-391. 1986. FR 32(1)
[N.Y. State Dep. Environ. Conserv., Albany]

87-000826 Hultberg, H. and P. Grennfelt. GARDSJON PROJECT: LAKE ACIDIFICATION, CHEMISTRY IN CATCHMENT RUNOFF, LAKE LIMING AND MICROCATCHMENT MANIPULATIONS. *Water Air Soil Pollut.* 30(1-2):31-46. 1986. FR 32(1)
[Swed. Environ. Res. Inst., P.O. Box 5207, S-402 24 Goteborg, Sweden]

87-000827 Hunter, R. G.; J. H. Carroll and J. S. Butler. THE RELATIONSHIP OF TROPHIC LEVEL TO ARSENIC BURDEN IN FISH OF A SOUTHERN GREAT PLAINS LAKE. *J. Freshwater Ecol.* 1(1):121-128. 1981. FR 32(1)

87-000828 Jackson, T. A. METHYL MERCURY LEVELS IN A POLLUTED PRAIRIE RIVER-LAKE SYSTEM: SEASONAL AND SITE-SPECIFIC VARIATIONS, AND THE DOMINANT INFLUENCE OF TROPHIC CONDITIONS. *Can. J. Fish. Aquatic Sci.* 43(10):1873-1887. 1986. In English with French summ. FR 32(1)
[Natl. Hydrol. Res. Inst., 11 Innovation Blvd., Saskatoon, SK S7N 2X7, Canada]

87-000829 Jellyman, D. J. FRESHWATER FISHERIES VALUES AND IMPACT ASSESSMENT. *N.Z. Minist. Agric. Fish. Water Soil Misc. Publ.* No. 83. p. 323-345. 1984. FR 32(1)
[Fish. Res. Div., MAF, Christchurch, New Zealand]

87-000830 Karr, J. R.; K. D. Fausch; P. L. Angermeier; P. R. Yant and I. J. Schlosser. ASSESSING BIOLOGICAL INTEGRITY IN RUNNING WATERS: A METHOD AND ITS RATIONALE. *Ill. Nat. Hist. Surv. Spec. Publ.* 5. 28p. 1986. FR 32(1)
[Smithsonian Trop. Res. Inst., Balboa, Panama]

87-000831 Krieger, R. I.; D. Marcy; J. H. Smith and K. Tomson. LEVELS OF NINE POTENTIALLY TOXIC ELEMENTS IN IDAHO FISH MANURES. *Bull. Environ. Contam. Toxicol.* 38(1):63-66. 1987. FR 32(1)
[WOI Reg. Proj. Vet. Med. Educ., Univ. Idaho, Moscow 83843]

87-000832 Lewis, T. W. and J. C. Makarewicz. EFFECT OF SMOKING ON MIREX LEVELS IN BROWN TROUT FROM LAKE ONTARIO. *N.Y. Fish Game J.* 32(1):84-86. 1985. FR 32(1)
[Dep. Biol Sci., State Univ. Coll., Brockport, NY 14420]

87-000833 Lyle, J. M. MERCURY AND SELENIUM CONCENTRATIONS IN SHARKS FROM NORTHERN AUSTRALIAN WATERS. *Aust. J. Mar. Freshwater Res.* 37(3):309-321. 1986. FR 32(1)

POLLUTION (CONTINUED)

87-000833 CONTINUED
[Fish. Oper. Div., Dep. Ports Fish., Locked Bag 100, G.P.O. Darwin, N.T. 5794, Australia]

87-000834 MacCrimmon, H. R. and B. L. Gots. LABORATORY OBSERVATIONS ON EMERGENT PATTERNS OF JUVENILE ATLANTIC SALMON, *SALMO SALAR*, RELATIVE TO SEDIMENT LOADINGS OF TEST SUBSTRATE. *Can. J. Zool.* 64(6):1331-1336. 1986. In English with French summ. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000835 Martin, H. C. ACID PRECIPITATION: PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON ACIDIC PRECIPITATION, MUSKOKA, ONTARIO, SEPTEMBER 15-20, 1985. *Water Air Soil Pollut.* 30(1-2):1-528. 1986. FR 32(1)
A Collection of papers.--RS.

87-000836 Nakamura, F. AVOIDANCE BEHAVIOR AND SWIMMING ACTIVITY OF FISH TO DETECT pH CHANGES. *Bull. Environ. Contam. Toxicol.* 37(6):808-815. 1986. FR 32(1)
[Dep. Environ. Eng., Yamanashi Univ., Kofu, Japan]

87-000837 Nicoletto, P. F.; A. C. Hendricks and L. D. Willis. SEXUAL DIFFERENCES OF MERCURY LEVELS IN CENTRARCHIDS: A COST OF REPRODUCTION? *Prog. IV Int. Congr. Ecol.* p. 255. 1986. Abstract only. FR 32(1)
[VPI & SU, Blacksburg, VA 24061]

87-000838 Niimi, A. J. BIOLOGICAL HALF-LIVES OF CHLORINATED DIPHENYL ETHERS IN RAINBOW TROUT *(SALMO GAIRDNERI). Aquat. Toxicol.* 9(2-3):105-116. 1986. FR 32(1)
[Can. Cent. Inland Waters, Burlington, ON L7R 4A6, Canada]

87-000839 Oh, Y.; T. Yoshida; H. Kojima; M. Wakabayashi and M. Kikuchi. [THE EFFECT OF COEXISTING ORGANIC COMPOUNDS ON THE BIOCONCENTRATION OF $^{203}HgCl_2$ IN MEDAKA *ORYZIAS LATIPES. Bull. Jpn. Soc. Sci. Fish.* 52(9):1653-1656. 1986. In Japanese with English summ. FR 32(1)
[Dep. Oceanogr. Mar. Res., Fish. Res. Dev. Agency, #2-16, Namhang-Dong, Youngdo-Ku, Pusan, Korea]

87-000840 Oladimeji, A. A. TRACE METALS - A POTENTIAL THREAT TO OUR FISHING INDUSTRY. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:200-205. 1983(1986). FR 32(1)
[Dep. Biol. Sci., Ahmadu Bello Univ., Zaria, Nigeria]

87-000841 Olmsted, L. L.; D. F. Degan; J. S. Carter and P. M. Cumbie. ASH BASIN EFFLUENTS AS A CONCERN OF FISHERIES MANAGERS: A CASE HISTORY AND PERSPECTIVE. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 261-269. 1986. FR 32(1)
[Duke Power Co., Rt. 4, Box 531, Huntersville, NC 28078]

87-000842 Pauwels, S. J. and T. A. Haines. FISH SPECIES DISTRIBUTION IN RELATION TO WATER CHEMISTRY IN SELECTED MAINE LAKES. *Water Air Soil Pollut.* 30(1-2):477-488. 1986. FR 32(1)
[Zool. Dep., Univ. Maine, Orono 04469]

POLLUTION (CONTINUED)

87-000843 Rosseland, B. O.; O. K. Skogheim; and I. H. Sevaldrud. ACID DEPOSITION AND EFFECTS IN NORDIC EUROPE. DAMAGE TO FISH POPULATIONS IN SCANDINAVIA CONTINUE TO APACE. *Water Air Soil Pollut.* 30(1-2):65-74. 1986. FR 32(1)
[Norsk Biotech A/S, P.O. Box 788, Krossen, N-4301 Sandnes, Norway]

87-000844 Rosseland, B. O. ECOLOGICAL EFFECTS OF ACIDIFICATION ON TERTIARY CONSUMERS. FISH POPULATION RESPONSES. *Water Air Soil Pollut.* 30(1-2):451-460. 1986. FR 32(1)
[Norsk Biotech A/S, P.O. Box 788, Krossen, N-4301 Sandnes, Norway]

87-000845 Rosseland, B. O. and O. K. Skogheim. NEUTRALIZATION OF ACIDIC BROOK-WATER USING A SHELL-SAND FILTER OR SEA-WATER: EFFECTS ON EGGS, ALEVINS AND SMOLTS OF SALMONIDS. *Aquaculture* 58(1-2):99-110. 1986. FR 32(1)
[Norsk Biotech A/S, P.O. Box 788, Krossen, N04301 Sandnes, Norway]

87-000846 Rosseland, B. O.; O. K. Skogheim; H. Abrahamsen and D. Matzow. LIMESTONE SLURRY REDUCED PHYSIOLOGICAL STRESS AND INCREASES SURVIVAL OF ATLANTIC SALMON *(SALMO SALAR)* IN AN ACIDIC NORWEGIAN RIVER. *Can. J. Fish. Aquatic Sci.* 43(10):1888-1893. 1986. In English with French summ. FR 32(1)
[Norsk Biotech A/S, P.O. Box 788, Krossen, N-4301 Sandnes, Norway]

87-000847 Rowe, D. K. FISHERY VALUES AND WATER QUALITY. *N.Z. Minist. Agric. Fish. Water Soil Misc. Publ.* No. 83. p. 305-322. 1984. FR 32(1)
[Fish. Res. Div., MAF, Rotorua, New Zealand]

87-000848 Sevaldrud, I. H. and O. K. Skogheim. CHANGES IN FISH POPULATIONS IN SOUTHERNMOST NORWAY DURING THE LAST DECADE. *Water Air Soil Pollut.* 30(1-2):381-386. 1986. FR 32(1)
[Dir. Nat. Manage., Fish. Res. Div., Tungasletta 2, 7000 Trondheim, Norway]

87-000849 Skurdal, J.; O. K. Skogheim and T. Qvenild. INDICATIVE VALUE OF MERCURY CONCENTRATION IN ADIPOSE FIN OF BROWN TROUT, *SALMO TRUTTA* L. *J. Fish Biol.* 29(4):515-517. 1986. FR 32(1)
[Dep. Biol., Div. Zool., Univ. Oslo, P.O. Box 1050, Blindern, N-0316 Oslo 3, Norway]

FISH KILLS

87-000850 Brunson, K. KANSAS 1985 FISH KILL INVESTIGATIONS. *Kans. Fish. I&D* NO. 86-4. 24p. 1985. FR 32(1)
[Kans. Fish Game Comm., P.O. Box 1525, Emporia 66801]

87-000851 Garrett, G. P. and C. R. Inman. SELENIUM-INDUCED CHANGES IN FISH POPULATIONS OF A HEATED RESERVOIR. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:291-301. 1984. FR 32(1)
[Tex. Parks Wildl. Dep., Junction Star Rt., Box 62, Ingram 78025]

TOXICOLOGY; BIOASSAYS

87-000852 Adams, W. J.; G. M. DeGraeve; T. D. Sabourin; J. D. Cooney and G. M. Mosher. TOXICITY AND BIOCONCENTRATION OF 2,3,7,8-TCDD TO FATHEAD MINNOWS *(PIMEPHALES PROMELAS). Chemosphere* 15(9-12):1503-1511. 1986. FR 32(1)
[Monsanto Co., Environ. Sci. Cent., St. Louis, MO 63167]

87-000853 Al-Sabti, K. CLASTOGENIC EFFECTS OF FIVE CARCINOGENIC-MUTAGENIC CHEMICALS ON THE CELLS OF THE COMMON CARP, *CYPRINUS CARPIO* L. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(1):5-9. 1986. FR 32(1)
[Publ. Health Serv., Prvomajska 1, 620000 Maribor, Yugoslavia]

87-000854 Andersen, R.; J. Frazier and P. C. Huang. TRANSITION METAL-BINDING PROTEINS FROM THREE CHESAPEAKE BAY FISH SPECIES. *Environ. Health Perspectives* 65:149-156. 1986. FR 32(1)
[P. C. Huang: Johns Hopkins Univ., Sch. Hygiene Publ. Health, Baltimore, MD 21205]

87-000855 Ankley, G. T.; V. S. Blazer; R. E. Reinert and M. Agosin EFFECTS OF AROCLOR 1254 ON CYTOCHROME *P*-450-DEPENDENT MONOOXYGENASE, GLUTATHIONE S-TRANSFERASE, AND UPT-GLUCURONOSYLTRANSFERASE ACTIVITIES IN CHANNEL CATFISH LIVER. *Aquat. Toxicol.* 9(2-3):91-103. 1986. FR 32(1)
[Sch. For. Resour., Univ. Ga., Athens 30602]

87-000856 Ballatori, N. and J. L. Boyer. SLOW BILLARY ELIMINATION OF METHYL MERCURY IN THE MARINE ELASMOBRANCHS, *RAJA ERINACEA* AND *SQUALUS ACANTHIAS. Toxicol. Appl. Pharmacol.* 85(3):407-415. 1986. FR 32(1)
[Dep. Med., Yale Univ. Sch. Med., New Haven, CT 06510]

87-000857 Bowser, P. R. FISH HEALTH AND THE AQUATIC ENVIRONMENT: NITROGENOUS COMPOUNDS. *Miss. Vet. J.* p. 14-15. 1986. FR 32(1)
[Sch. Vet. Med., Cornell Univ., Ithaca, NY]

87-000858 Clark, J. R.; J. M. Patrick, Jr.; D. P. Middaugh and J. C. Moore. RELATIVE SENSITIVITY OF SIX ESTUARINE FISHES TO CARBOPHENOTHION, CHLORPYRIFOS, AND FENVALERATE. *Ecotoxicol. Environ. Safety* 10(3):382-390. 1985. FR 32(1)
[U.S. EPA, Environ. Res. Lab., Sabine Island, Gulf Breeze, FL 32561]

87-000859 Couch, J. A. and J. C. Harshbarger. EFFECTS OF CARCINOGENIC AGENTS ON AQUATIC ANIMALS: AN ENVIRONMENTAL AND EXPERIMENTAL OVERVIEW. *Environ. Carcinogenesis Rev.* 3(1):63-105. 1985. FR 32(1)
[U.S. EPA, Environ. Res. Lab., Gulf Breeze, FL 32561]

87-000860 Cruz, E. R. and C. T. Tamse. HISTOPATHOLOGICAL RESPONSE OF MILKFISH *CHANOS CHANOS* FORSSKAL FINGERLINGS TO POTASSIUM PERMANGANATE. *Fish Pathol.* 21(3):151-159. 1986. FR 32(1)
[Pathol. Lab., Aquacult. Dep., Southeast Asian Fish. Dev. Cent., Tigbauan, Iloilo, Philippines]

87-000861 Dange, A. D. BRANCHIAL Na^+-K^+-ATPase INHIBITION IN A FRESHWATER EURYHALINE TELEOST, TILAPIA *(OREOCHROMIS MOSSAMBICUS)*, DURING SHORT-TERM EXPOSURE TO TOLUENE OR NAPHTHALENE: INFLUENCE OF SALINITY.

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000861 CONTINUED *Environ. Pollut.* 42(3):273-286. 1986. FR 32(1)
[Dep. Zool., Wilson Coll., Chowpatty, Bombay 400 007, India]

87-000862 Doubet, D. K. EMBRYOTOXICITY OF MERCURY (MERCURIC CHLORIDE) IN *CAMPOSTOMA OLIGOLEPIS*. *Trans. Mo. Acad. Sci.* 19:124-125. 1985. Abstract only. FR 32(1)
[Southeast Mo. State Univ., Cape Girardeau, MO 63701]

87-000863 Elsasser, M. S.; B. S. Roberson and F. M. Hetrick. EFFECTS OF METALS ON THE CHEMILUMINESCENT RESPONSE OF RAINBOW TROUT (*SALMO GAIRDNERI*) PHAGOCYTES. *Vet. Immunol. Immunopathol.* 12(1-4):243-250. 1986. FR 32(1)
[Microbiol. Dep., Univ. Md., College Park 20742]

87-000864 Haider, S. and N. Upadhyaya. EFFECT OF COMMERCIAL FORMULATION OF FOUR ORGANOPHOSPHORUS INSECTICIDES ON THE LH-INDUCED GERMINAL VESICLE BREAKDOWN IN THE OOCYTES OF A FRESHWATER TELEOST, *MYSTUS VITTATUS* (BLOCH)--A PRELIMINARY IN VITRO STUDY. *Ecotoxicol. Environ. Safety* 12(2):161-165. 1986. FR 32(1)
[Dep. Zool., Banaras Hindu Univ., Varanasi-221005, India]

87-000865 Hamilton, S. J.; A. N. Palmisano; G. A. Wedemeyer and W. T. Yasutake. IMPACTS OF SELENIUM ON EARLY LIFE STAGES AND SMOLTIFICATION OF FALL CHINOOK SALMON. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:343-356. 1986. FR 32(1)
[U.S. FWS, Columbia Natl. Fish. Res. Lab., Yankton Field Res. Stn., Yankton, SD]

87-000866 Harrison, F. L. and J. R. Lam. COPPER-BINDING PROTEINS IN LIVER OF BLUEGILLS EXPOSED TO INCREASED SOLUBLE COPPER UNDER FIELD AND LABORATORY CONDITIONS. *Environ. Health Perspect.* 65:125-132. 1986. FR 32(1)
[Environ. Sci. Div., Lawrence Livermore Natl. Lab., Livermore, CA 94550]

87-000867 Henson, M. F. THE EFFECTS OF LOWERED pH AND TEMPERATURE ON THE EARLY LIFE STAGES OF THE BLEEDING SHINER *(NOTROPIS ZONATUS)*. *Trans. Mo. Acad. Sci.* 19:124. 1985. Abstract only. FR 32(1)
[Southeast Mo. State Univ., Cape Girardeau, MO 63701]

87-000868 Herman, D.; N. K. Kaushik and K. R. Solomon. IMPACT OF ATRAZINE ON PERIPHYTON IN FRESHWATER ENCLOSURES AND SOME ECOLOGICAL CONSEQUENCES. *Can. J. Fish. Aquatic Sci.* 43(10):1917-1925. 1986. In English with French summ. FR 32(1)
[Dep. Environ. Biol., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000869 Kay, J.; D. G. Thomas; M. W. Brown; A. Cryer; D. Shurben; J. F. deL G. Solbe and J. S. Garvey. CADMIUM ACCUMULATION AND PROTEIN BINDING PATTERNS IN TISSUES OF THE RAINBOW TROUT, *SALMO GAIRDNERI*. *Environ. Health Perspectives* 65:133-139. 1986. FR 32(1)
[Dep. Biochem., Univ. Coll., P.O. Box 78, Cardiff CF1 1XL, Wales]

87-000870 Kettle, W. D.; F. deNoyelles, Jr.; B. D. Heacock and A. M. Kadoum. DIET AND REPRODUCTIVE SUCCESS OF BLUEGILL RECOVERED FROM EXPERIMENTAL PONDS TREATED WITH ATRAZINE. *Bull. Environ. Contam. Toxicol.* 38(1):47-52.

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000870 CONTINUED 1987. FR 32(1)
[Exp. Appl. Ecol. Prog., Haworth Hall, Univ. Kans., Lawrence 66045]

87-000871 Kleinschmidt, J.; C. L. Zucker and S. Yazulla. NEUROTOXIC ACTION OF KAINIC ACID IN THE ISOLATED TOAD AND GOLDFISH RETINA: II. MECHANISM OF ACTION. *J. Comp. Neurol.* 254(2):196-208. 1986. FR 32(1)
[Dep. Neurobiol. Behav., State Univ. N.Y., Stony Brook 11794]

87-000872 Kulshrestha, S. K.; N. Arora and S. Sharma. TOXICITY OF FOUR PESTICIDES ON THE FINGERLINGS OF INDIAN MAJOR CARPS *LABEO ROHITA, CATLA CATLA*, AND *CIRRHINUS MRIGALA*. *Ecotoxicol. Environ. Safety* 12(2):114-119. 1986. FR 32(1)
[Dep. Zool., Govt. Motilal Sci. Coll., Bhopal 462 003, M.P., India]

87-000873 Kumaraguru, A. K. and F. W. H. Beamish. EFFECT OF PERMETHRIN (NRDC-143) ON THE BIOENERGETICS OF THE RAINBOW TROUT, *SALMO GAIRDNERI*. *Aquat. Toxicol.* 9(1):47-58. 1986. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada]

87-000874 Lawrence, J.; F. Onuska; R. Wilkinson and B. K. Afghan. METHODS RESEARCH: DETERMINATION OF DIOXINS IN FISH AND SEDIMENT. *Chemosphere* 15(9-12):1085-1090. 1986. FR 32(1)
[Natl. Water Res. Inst., Can. Cent. Inland Waters, P.O. Box 5050, Burlington, ON L7R 4A6, Canada]

87-000875 McKim, J. M.; P. K. Schmieder and R. J. Erickson. TOXICOKINETIC MODELING OF [^{14}C]PENTACHLOROPEHNOL IN THE RAINBOW TROUT *(SALMO GAIRDNERI)*. *Aquat. Toxicol.* 9(1):59-80. 1986. FR 32(1)
[U.S. EPA, Environ. Res. Lab., Duluth, MN 55804]

87-000876 Miossec, L. and G. Bocquene. [ACUTE TOXICITY AND SUBLETHAL EFFECTS, AFTER A SHORT EXPOSURE, OF SOME POLYETHOXYLATED NONYLPHENOLS TO ELVERS.] *Rev. Trav. Inst. Peches Marit.* 48(1-2):77-84. 1984. In French with English summ. FR 32(1)
[IFREMER, Lab. Effets Biol. Nuisances, B.P. 1049, 44037 Nantes Cedex 01, France]

87-000877 Misra, V.; H. Lal; G. Chawla and P. N. Viswanathan. PATHOMORPHOLOGICAL CHANGES IN GILLS OF FISH FINGERLINGS (*CIRRHINA MRIGALA*) BY LINEAR ALKYL BENZENE SULFONATE. *Ecotoxicol. Environ. Safety* 10(3):302-308. 1985. FR 32(1)
[Ind. Toxicol. Res. Cent., P.O. Box 80, Mahatma Gandhi Marg, Lucknow-226 001, India]

87-000878 Nakanishi, H.; J. Takebayashi; T. Tsuda; S. Aoki; S. Fukui and T. Hirayama. COMPARATIVE STUDIES ON CHANGES IN LIPID COMPOSITION AND SOME HISTOLOGICAL RESPONSES OF GILLS FROM CARP BY EXPOSURE TO ACUTE LEVEL OF SURFACTANTS. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(2):375-379. 1986. FR 32(1)
[Shiga Pref. Inst. Publ. Health Environ. Sci., 13-45, Gotenhama, Ohtsu Shiga, Japan]

87-000879 Nakanishi, H.; J. Takebayashi; T. Tsuda; B. Nakagawa; S. Fukui and T. Hirayama. CHANGES IN LIPID COMPOSITION AND SOME PATHOLOGICAL RESPONSES OF ROUND CRUCIAN CARP GILLS BY THE EXPOSURE TO ACUTE LEVELS OF

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000879 CONTINUED DODECYLBENZENESULFONATE. *Comp. Biochem. Physiol. C Comp. Pharmacol. Toxicol.* 85(2):381-383. 1986. FR 32(1)
[Shiga Pref. Inst. Publ. Health Environ. Sci., 13-45, Gotenhama, Ohtsu Shiga, Japan]

87-000880 Narbonne, J. F.; P. Suteau; M. Daubeze and C. Audy. POLYCYCLIC AROMATIC HYDROCARBON METABOLISM IN MULLETS, *CHELON LABROSUS*, TREATED BY POLYCHLORINATED BIPHENYLS. *Bull. Environ. Contam. Toxicol.* 38(1):53-57. 1987. FR 32(1)
[Lab. Food Toxicol., Bordeaux I Univ., Ave. Facultes, 33405 Talence, France]

87-000881 Nemcsok, J.; K. Gyore; J. Olah and L. Boross. EFFECT OF NH3 ON BLOOD GLUCOSE AND CATECHOLAMINE LEVEL, GOT, GPT, LDH ENZYME ACTIVITY AND RESPIRATION OF FISHES. *Symp. Biol. Hung.* 23:209-217. 1984. FR 32(1)
[Dep. Biochem., Jozsef Attila Univ., Szeged, Hungary]

87-000882 Pandey, A. M. RESPONSE OF CORTICOSTEROIDOGENIC, CATECHOLAMINE-SECRETING CELLS, CORPUSCLES OF STANNIUS, AND DAHLGREN CELLS OF SNAKE HEADED MURREL *OPHIOCEPHALUS PUNCTATUS* (BLOCH) TO THIODAN TREATMENT--A KARYOMETRIC INVESTIGATION. *Ecotoxicol. Environ. Safety* 12(2):101-104. 1986. FR 32(1)
[Dep. Zool., Pachhunga Univ. Coll., Aizawl-796001, Mizoram, India]

87-000883 Pant, J.; H. Tewari and T. S. Gill. EFFECTS OF ALDICARB ON THE BLOOD AND TISSUES OF A FRESHWATER FISH. *Bull. Environ. Contam. Toxicol.* 38(1):36-41. 1987. FR 32(1)
[Dep. Zool., Kumaun Univ., Naini Tal 263 002, India]

87-000884 Price-Haughey, J.; K. Bonham and L. Gedamu. HEAVY METAL-INDUCED GENE EXPRESSION IN FISH AND FISH CELL LINES. *Environ. Health Perspectives* 65:141-147. 1986. FR 32(1)
[L. Gedamu: Dep. Biol., Univ. Calgary, Calgary, AB T2N 1N4, Canada]

87-000885 Rasmussen, H. B.; K. Larsen; B. Hald; B. Moller and F. Elling. OUTBREAK OF LIVER-CELL CARCINOMA AMONG SALTWATER-REARED RAINBOW TROUT *SALMO GAIRDNERI* IN DENMARK. *Dis. Aquat. Organ.* 1(3):191-196. 1986. FR 32(1)
[Lab. Aquat. Pathobiol., Royal Vet. Agric. Univ., B Bulowsvej, DK-1870 Frederiksberg C, Denmark]

87-000886 Raymond, P.; G. Leduc and J. A. Kornblatt. [INVESTIGATION OF THE BIOTRANSFORMATION AND TOXICODYNAMICS OF CYANIDE IN THE RAINBOW TROUT *(SALMO GAIRDNERI).] Can. J. Fish. Aquatic Sci.* 43(10):2017-2024. 1986. In French with English summ. FR 32(1)
[Dep. Biol., Univ. Concordia, Montreal, PQ H3G 1M8, Canada]

87-000887 Razani, H.; K. Nanba and S. Murachi. CHRONIC TOXIC EFFECT OF PHENOL ON ZEBRAFISH *BRANCHYDANIO RERIO. Bull. Jpn. Soc. Sci. Fish.* 52(9):1553-1558. 1986. FR 32(1)
[Fish. Dep., Univ. Tokyo, Bunkyo, Tokyo 113, Japan]

87-000888 Razani, H.; K. Nanba and S. Murachi. ACUTE TOXIC EFFECT OF PHENOL ON ZEBRAFISH *BRACHYDANIO RERIO. Bull. Jpn. Soc. Sci. Fish.* 52(9):1547-1552. 1986. FR 32(1)
[Fish. Dep., Univ. Tokyo, Bunkyo, Tokyo 113, Japan]

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000889 Richardson, G. M. and S. U. Qadri. TISSUE DISTRIBUTION OF C-LABELED RESIDUES OF AMINOCARB IN BROWN BULLHEAD (*ICTALURUS NEBULOSUS* LE SUEUR) FOLLOWING ACUTE EXPOSURE. *Ecotoxicol. Environ. Safety* 12(2):180-186. 1986. FR 32(1)
[Environ. Prot. Serv., Environ. Canada, Ottawa, ON K1A 1C8, Canada]

87-000890 Richmond, C. J. BIOASSAYS USING FRESHWATER FISH FOR WATER QUALITY MONITORING AND ASSESSMENT. *N.Z. Minist. Agric. Fish. Water Soil Misc. Publ.* No. 83. p. 361-372. 1984. FR 32(1)
[Wildl. Serv., Dep. Internal Affr., Rotorua, New Zealand]

87-000891 Robohm, R. A. PARADOXICAL EFFECTS OF CADMIUM EXPOSURE ON ANTIBACTERIAL ANTIBODY RESPONSES IN TWO FISH SPECIES: INHIBITION IN CUNNERS (*TAUTOGOLABRUS ADSPERSUS*) AND ENHANCEMENT IN STRIPED BASS (*MORONE SAXATILIS*). *Vet. Immunol. Immunopathol.* 12(1-4):251-262. 1986. FR 32(1)
[NMFS, Exp. Biol. Br., Northeast Fish. Cent., Milford, CT 06460]

87-000892 Sabharwal, A. K. and D. K. Belsare. PERSISTENCE OF METHYL PARATHION IN A CARP REARING POND. *Bull. Environ. Contam. Toxicol.* 37(5):705-709. 1986. FR 32(1)
[D.K. Belsare: Sch. Biol. Sci., Bhopal Univ., Bhopal 462026, India]

87-000893 Sakai, T.; K. Yamamoto; M. Endo; A. Kuroki; K. Kumanda; K. Takeda and T. Aramaki. CHANGES IN THE GILL CARBONIC ANHYDRASE ACTIVITY OF FISH EXPOSED TO *CHATTONELLA MARINA* RED TIDE, WITH SPECIAL REFERENCE TO THE MORTALITY. *Bull. Jpn. Soc. Sci. Fish.* 52(8):1351-1354. 1986. FR 32(1)
[Fac. Agric., Miyazaki Univ., Kumano, Miyazaki 889-21, Japan]

87-000894 Schultz, T. W.; G. W. Holcombe and G. L. Phipps. RELATIONSHIPS OF QUANTITATIVE STRUCTURE-ACTIVITY TO COMPARATIVE TOXICITY OF SELECTED PHENOLS IN THE *PIMEPHALES PROMELAS* AND *TETRAHYMENA PYRIFORMIS* TEST SYSTEMS. *Ecotoxicol. Environ. Safety* 12(2):146-153. 1986. FR 32(1)
[Coll. Vet. Med., Univ. Tenn., P.O. Box 1071, Knoxville 37901]

87-000895 Sharp, J. R. EMBRYOTOXICITY IN FISHES: PREDICTIVE CONSEQUENCES OF ENVIRONMENTAL STRESSORS. *Trans. Mo. Acad. Sci.* 19:125. 1985. Abstract only. FR 32(1)
[Southeast. Mo. State Univ., Cape Girardeau, MO 63701]

87-000896 Siddens, L. K.; W. K. Seim; L. R. Curtis and G. A. Chapman. COMPARISON OF CONTINUOUS AND EPISODIC EXPOSURE TO ACIDIC, ALUMINUM-CONTAMINATED WATERS OF BROOK TROUT *(SALVELINUS FONTINALIS). Can. J. Fish. Aquatic Sci.* 43(10):2036-2040. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Wildl., Oak Creek Lab. Biol., Oreg. State Univ., Corvallis 97331]

87-000897 Spitsbergen, J. M.; K. A. Schat; J. M. Kleeman and R. E. Peterson. INTERACTIONS OF 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (TCDD) WITH IMMUNE RESPONSES OF RAINBOW TROUT. *Vet. Immunol. Immunopathol.* 12(1-4): 263-280. 1986. FR 32(1)
[K.A. Schat: Avian Aquacult. Anim. Med., Cornell Univ., Ithaca, NY 14853]

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000898 Tam, W. H.; P. D. Payson and R. J. J. Roy. RETARDATION AND RECOVERY OF GROWTH IN BROOK TROUT FRY *(SALVELINUS FONTINALIS)* EXPOSED FOR VARIOUS DURATIONS TO ACIDIFIED WATER. *Can. J. Fish. Aquatic Sci.* 43(10):2048-2050. 1986. In English with French summ. FR 32(1)
[Dep. Zool., Univ. West. Ontario, London, ON N6A 5B7, Canada]

87-000899 Van Daele, Y. and J. P. Thome. PURIFICATION OF PCB CONTAMINATED WATER BY CHITOSAN: A BIOLOGICAL TEST OF EFFICIENCY USING THE COMMON BARBEL, *BARBUS BARBUS. Bull. Environ. Contam. Toxicol.* 37(6):858-865. 1986. FR 32(1)
[J.P. Thome: Lab. Anim. Morphol., Syst. & Ecol., Zool. Inst., Univ. Liege, 22 Quai Van Beneden, B4020 Liege, Belgium]

87-000900 Van Leeuwen, C. J.; T. Helder and W. Seinen. AQUATIC TOXICOLOGICAL ASPECTS OF DITHIOCARBAMATES AND RELATED COMPOUNDS. IV. TERATOGENICITY AND HISTOPATHOLOGY IN RAINBOW TROUT *(SALMO GAIRDNERI). Aquat. Toxicol.* 9(2-3):147-159. 1986. FR 32(1)
[Lab. Ecotoxicol., Inst. Inland Water Manage. Waste Water Treatment, P.O. Box 17, 8200 AA Lelystad, Netherlands]

87-000901 Van Leeuwen, C. J.; A. Espeldoorn and F. Mol. AQUATIC TOXICOLOGICAL ASPECTS OF DITHIOCARBAMATES AND RELATED COMPOUNDS. III. EMBRYOLARVAL STUDIES WITH RAINBOW TROUT *(SALMO GAIRDNERI). Aquat. Toxicol.* 9(2-3):129-145. 1986. FR 32(1)
[Lab. Ecotoxicol., Inst. Inland Water Manage. Waste Water Treatment, P. O. Box 17, 8200 AA Lelystad, Netherlands]

87-000902 Van Leeuwen, C. J.; J. L. Maas-Diepeveen and H. C. M. Overbeek. SUBLETHAL EFFECTS OF TETRAMETHYLTHIURAM DISULFIDE (THIRAM) IN RAINBOW TROUT *(SALMO GAIRDNERI). Aquat. Toxicol.* 9(1):13-19. 1986. FR 32(1)
[Lab. Ecotoxicol., Inst. Inland Water Manage. Waste Water Treatment, Minist. Transport. Publ. Works, Lelystad, Netherlands]

87-000903 Watenpaugh, D. E. and T. L. Beitinger. RESISTANCE OF NITRITE-EXPOSED CHANNEL CATFISH, *ICTALURUS PUNCTATUS*, TO HYPOXIA. *Bull. Environ. Contam. Toxicol.* 37(6):802-807. 1986. FR 32(1)
[T.L. Beitinger: Dep. Biol. Sci., Inst. Appl. Sci., North Tex. State Univ., Denton 76203]

87-000904 Weis, P.; J. D. Bogden and E. C. Enslee. HG- AND CU-INDUCED HEPATOCELLULAR CHANGES IN THE MUMMICHOG, *FUNDULUS HETEROCLITUS. Environ. Health Perspectives* 65:167-173. 1986. FR 32(1)
[Dep. Anat., UMDNJ-New Jersey Med. Sch., Newark 07103]

87-000905 Wester, P. W. and J. H. Canton. HISTOPATHOLOGICAL STUDY OF *ORYZIAS LATIPES* (MEDAKA) AFTER LONG-TERM ß-HEXACHLOROCYCLOHEXANE EXPOSURE. *Aquat. Toxicol.* 9(1):21-45. 1986. FR 32(1)
[Lab. Pathol., Natl. Inst. Publ. Health Environ. Hygiene, Bilthoven, Netherlands]

87-000906 Wise, M. L.; C. L. Stiebel and J. M. Grizzle. ACUTE TOXICITY OF NITROFURAZONE TO CHANNEL CATFISH, *ICTALURUS PUNCTATUS*, AND GOLDFISH, *CARASSIUS AURATUS. Bull. Environ. Contam. Toxicol.* 38(1):42-46. 1987. FR 32(1)
[Dep. Fish. Allied Aquacult., Ala. Agric. Exp. Stn., Auburn Univ., Auburn 36849]

TOXICOLOGY; BIOASSAYS (CONTINUED)

87-000907 Zinkl, J. G.; P. J. Shea; R. J. Nakamoto and J. Callman. BRAIN CHOLINESTERASE ACTIVITY OF RAINBOW TROUT POISONED BY CARBARYL. *Bull. Environ. Contam. Toxicol.* 38(1):29-35. 1987. FR 32(1)
[Dep. Clin. Pathol., Sch. Vet. Med., Univ. Calif., Davis 95616]

87-000908 Zinkl, J. G.; P. J. Shea; R. J. Nakamoto and J. Callman. EFFECTS OF CHOLINESTERASES OF RAINBOW TROUT EXPOSED TO ACEPHATE AND METHAMIDOPHOS. *Bull. Environ. Contam. Toxicol.* 38(1):22-28. 1987. FR 32(1)
[Dep. Clin. Pathol., Sch. Vet. Med., Univ. Calif., Davis 95616]

RESEARCH AND MANAGEMENT-GENERAL

87-000909 Aderounmu, A. A. SMALL-SCALE FISHERIES DEVELOPMENT IN NIGERIA: STATUS, PROSPECTS, CONSTRAINTS/RECOMMENDED SOLUTIONS. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:30-39. 1983(1986). FR 32(1)
[Fed. Dep. Fish., Lagos, Nigeria]

87-000910 Alverson, D. L. U. S. FISHERIES POLICY EVOLUTION. *Alaska Sea Grant Rep.* 85-2. p. 3-31. 1985. FR 32(1)
[Nat. Res. Consult., Seattle, WA]

87-000911 Bolen, E. G. and D. F. Behrend. FISH AND WILDLIFE: FROM NEGLECT TO ACTION. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:578-579. 1986. FR 32(1)
[Tex. Tech Univ., Lubbock]

87-000912 Breen, A. and D. Rigby. FISHING PIERS: WHAT CITIES CAN DO. *Waterfront Press, Washington, DC* iv+76p. 1986. FR 32(1)
[Available @ $19.95 from the Waterfront Press, 1536 44th St., N.W., Washington, DC 20007]

87-000913 Brewer, G. D. THE WIDER DIMENSIONS OF MANAGEMENT UNCERTAINTY IN WORLD FISHERIES. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 275-285. 1984. FR 32(1)
[Sch. Organ. & Manage., Yale Univ., New Haven, CT 06520]

87-000914 Byrne, J. V. SALMON IS KING--OR IS IT? *Environ. Law* 16(3):343-358. 1986. FR 32(1)
[Oreg. State Univ., Corvallis]

87-000915 Clark, C. W. STRATEGIES FOR MULTISPECIES MANAGEMENT: OBJECTIVES AND CONSTRAINTS. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 303-312. 1984. FR 32(1)
[Dep. Math., Univ. British Columbia, Vancouver, BC, V6T 1W5, Canada]

87-000916 Cole, C. F.; C. Griswold; V. Henderson; E. Hester; T. Modde; R. L. Noble; G. Pardue; N. C. Parker; D. C. Peterson; W. F. Royce and P. J. Wingate. A PROFESSIONAL UMBRELLA FOR THE 80s. REPORT OF THE 1983-84 PROFESSIONALISM COMMITTEE. *Fisheries (Bull. Am. Fish. Soc.)* 11(6):22-28. 1986. FR 32(1)

87-000917 Dada, B. F. and D. A. S. Gnanadoss. NIGERIAN FISHERIES DEVELOPMENT CHALLENGES AND OPPORTUNITIES OF THE 1980'S. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:14-24. 1983(1986). FR 32(1)
[Fed. Dep. Fish., Lagos, Nigeria]

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

87-000918 Eaton, D. B. CONFLICTING CONCEPTUAL TOOLS AND FAULTY SIMILIES. *Alaska Sea Grant Rep.* 85-2. p. 61-74. 1985. FR 32(1)

87-000919 Evans, D. J. TOWARD THE RETURN OF PACIFIC SALMON AND STEELHEAD. *Environ. Law* 16(3):359-362. 1986. FR 32(1)

87-000920 FAO of the UN. COMMITTEE FOR INLAND FISHERIES OF AFRICA. REPORT OF THE THIRD SESSION OF THE SUB-COMMITTEE FOR LAKE TANGANYIKA. *FAO Fish. Rep.* No. 355. v+22p. 1986. FR 32(1)
[Rome, Italy]

87-000921 FAO of the UN. REPORT OF THE FOURTH SESSION OF THE COMMISSION FOR INLAND FISHERIES OF LATIN AMERICA. *FAO Fish. Rep.* No. 356. vi+42p. 1986. In English and Spanish. FR 32(1)
[Rome, Italy]

87-000922 FAO of the UN. STRATEGY FOR FISHERIES MANAGEMENT AND DEVELOPMENT. *FAO of the UN* 26p. 1986. FR 32(1)
[Rome, Italy]

87-000923 Gaudet, J. L. and D. Parker (eds.). SYMPOSIUM ON THE PLANNING AND IMPLEMENTATION OF FISHERIES MANAGEMENT AND DEVELOPMENT PROGRAMMES IN AFRICA. *FAO Fish. Rep.* No. 360. v+155p. 1986. FR 32(1)
[FAO of the UN, Rome, Italy]

87-000924 George, C. J.; R. A. Daniels and T. J. Sinnott. THE IMPORTANCE OF ARCHIVES: FISH ILLUSTRATIONS OF THE 1926-39 WATERSHED SURVEY IN NEW YORK STATE. *Fisheries (Bull. Am. Fish. Soc.)* 11(6):2-11. 1986. FR 32(1)
[Dep. Biol. Sci., Union Coll., Schenectady, NY 12308]

87-000925 Gresswell, R. E. SAVING THE DUMB GENE IN YELLOWSTONE: THERE IS MORE TO PRESERVATION THAN GRANOLA. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:218-223. 1985. FR 32(1)
[U.S. FWS, Lake, WY]

87-000926 Gulland, J. A. and S. Garcia. OBSERVED PATTERNS IN MULTISPECIES FISHERIES. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 155-190. 1984. FR 32(1)
[Dep. Fish., FAO, Rome, Italy]

87-000927 Gulland, J. FISHERIES MANAGEMENT PROBLEMS: AN INTERNATIONAL PERSPECTIVE. *Alaska Sea Grant Rep.* 85-2. p. 33-59. 1985. FR 32(1)

87-000928 Hegen, H. E.; G. E. Saul and G. C. Matlock. SURVIVAL OF HOOK-CAUGHT SPOTTED SEATROUT. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:488-494. 1984. FR 32(1)
[Tex. Parks Wildl. Dep., Coastal Fish. Br., P.O. Box 1717, Rockport 78382]

87-000929 Hingston, W. THE DIVERGENT RESULTS OF POLITICAL AND BIOLOGICAL CONSIDERATIONS IN THE MANAGEMENT OF FISHERIES RESOURCES. *Alaska Sea Grant Rep.* 85-2. p. 75-86. 1985. FR 32(1)

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

87-000930 Huffstodt, J. FISHING FOR A FEE. *Farm Pond Harvest* 19(4): 17,20. 1985. FR 32(1)

87-000931 Huner, J. V. FEE FISHING--LOOK BEFORE YOU LEAP. *Farm Pond Harvest* 19(4):14-16,28. 1985. FR 32(1)
[Cent. Small Farm Res., Coll. Agric., Southern Univ., Baton Rouge, LA 70813]

87-000932 Labisky, R. F.; D. Stansbury and S. C. Smith. FISH AND WILDLIFE: THE FORGOTTEN RESOURCE IN NATIONAL POLICY. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:538-542. 1986. FR 32(1)
[Dep. Wildl. Range Sci., Univ. Fla., Gainesville]

87-000933 Larkin, P. A.; C. W. Clark; N. Daan; S. Dutt; V. Hongskul; S. A. Levin; G. G. Newman; D. M. Pauly; G. Radach and H. K. Rosenthal. STRATEGIES FOR MULTISPECIES MANAGEMENT. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 287-301. 1984. FR 32(1)

87-000934 Lee, D. C.; A. J. Kneese and W. E. Grant. AN INTEGRATED MODELING STRUCTURE FOR COLUMBIA RIVER BASIN SALMON AND STEELHEAD MANAGEMENT. *Prog. IV Int Congr. Ecol.* p. 213-214. 1986. Abstract only. FR 32(1)
[Resources for the Future, Washington, DC 20036]

87-000935 Mabawonku, A. F. INFORMATION REQUIREMENTS FOR EFFECTIVE FISHERIES PLANNING IN NIGERIA. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:25-29. 1983(1986). FR 32(1)
[Dep. Agric. Econ., Univ. Ibadan, Ibadan, Nigeria]

87-000936 Marnell, L. F. AQUATIC RESOURCES POLICY AND FISHERIES MANAGEMENT IN GLACIER NATIONAL PARK. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:211-217. 1985. FR 32(1)
[Natl. Park Serv., Glacier Natl. Park, West Glacier, MT]

87-000937 Morello, F. A. DEVELOPMDNT AND MANAGEMENT OF AN URBAN FISHERY WITH HYBRID STRIPED BASS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:436-445. 1984. FR 32(1)
[Fla. Game Fresh Water Fish Comm., 551 N. Military Trail, West Palm Beach 33415]

87-000938 Newman, G. G. MANAGEMENT TECHNIQUES FOR MULTISPECIES FISHERIES. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 313-333. 1984. FR 32(1)
[Fish. Wildl. Serv., Dep. Conserv., For. Lands, Melbourne, Vic. 3002, Australia]

87-000939 Pfund, R. T. A SURVEY OF FISHERY PROGRAMS IN COLLEGES AND UNIVERSITIES IN THE UNITED STATES. *Fisheries (Bull. Am. Fish. Soc.)* 11(6):16-21. 1986. FR 32(1)
[Univ. Hawaii Sea Grant Prog., 1000 Pope Rd., MSB 220, Honolulu 96822]

87-000940 Sagua, V. O. THE ROLE OF RESEARCH AND RESEARCH INSTITUTES IN FISHERIES DEVELOPMENT IN THE 1980s. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:54-57. 1983(1986). FR 32(1)
[Lake Chad Res. Inst., Maiduguri, Nigeria]

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

87-000941 Steele, J. H. KINDS OF VARIABILITY AND UNCERTAINTY AFFECTING FISHERIES. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 245-262. 1984. FR 32(1)
[Woods Hole Oceanogr. Inst., Woods Hole, MA 02543]

87-000942 Walters, C. J. MANAGING FISHERIES UNDER BIOLOGICAL UNCERTAINTY. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 263-274. 1984. FR 32(1)
[Inst. Anim. Resour. Ecol., Univ. British Columbia, Vancouver, BC, V6T 1W5, Canada]

ADMINISTRATION AND PLANNING

87-000943 U.S. Fish and Wildlife Service. POTENTIAL FUNDING SOURCES TO IMPLEMENT THE FISH AND WILDLIFE CONSERVATION ACT OF 1980. *U.S. Fish Wildl. Serv. Biol. Rep.* 85.5. ix+205p. 1985. FR 32(1)
[U.S. Dep. Interior, Washington, DC 20240]

REPORTS OF FISHERY STATIONS, STATES, ETC.

87-000944 International Pacific Halibut Commission. ANNUAL REPORT 1985. *Int. Pac. Halibut Comm. Annu. Rep.* 1985. 59p. 1986. FR 32(1)
[P.O. Box 95009, Seattle, WA 98145-2009]

87-000945 Knuth, B. A. and L. A. Nielson. MONITORING THE FISHERIES AND WILDLIFE ENTERPRISE: A CONTENT ANALYSIS OF AGENCY ANNUAL REPORTS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:671-681. 1984. FR 32(1)
[Dep. Fish. Wildl. Sci., VPI&SU, Blacksburg, VA]

HABITAT ALTERATIONS

87-000946 Anderson, R.; D. Asquin and P. Jablonski. SIZING CROSSINGS FOR EASTERN SLOPE STREAMS: A HANDBOOK OF THREE COMMON METHODS. *Alberta For. Lands Wildl. For. Serv.* 27p. 1986. FR 32(1)
[Alberta For. Lands Wildl. For. Serv., Edmonton, AB, Canada]

87-000947 Binns, N. A. HABITAT, MACROINVERTEBRATE AND FISHERY RESPONSE TO STREAM IMPROVEMENT EFFORTS IN THE THOMAS FORK BEAR RIVER DRAINAGE, WYOMING. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 105-116. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[Wyo. Game Fish Dep., 260 Buena Vista Dr., Lander, WY 82520]

87-000948 Blumm, M. C. and B. Kloos. SMALL SCALE HYDROPOWER AND ANADROMOUS FISH: LESSONS AND QUESTIONS FROM THE WINCHESTER DAM CONTROVERSY. *Environ. Law* 16(3):583-637. 1986. FR 32(1)
[Northwest. Sch. Law, Lewis and Clark Coll., 10015 S.W. Terwilliger Blvd., Portland, OR 97219]

HABITAT ALTERATIONS (CONTINUED)

87-000949 Bohn, C. C. and J. C. Buckhouse. EFFECTS OF GRAZING MANAGEMENT ON STREAMBANKS. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:265-271. 1986. FR 32(1)
[Dep. Range Wildl. For., Univ. Nev., Reno]

87-000950 Bosley, T. R.; C. H. Pennington and M. E. Potter. DISTRIBUTION OF LARVAL FISHES IN A LOWER MISSISSIPPE RIVER DIKE FIELD. *Proc. Annu. Conf. Southeast. Assoc. Fish Wild. Agencies* 38:615-621. 1984. FR 32(1)
[U.S. Army Eng. Waterways Exp. Stn., P.O. Box 631, Vicksburg, MS 39180]

87-000951 Chart, T. and E. Bergersen. THE IMPACT OF TAYLOR DRAW DAM AND KENNEY RESERVOIR ON THE FISHES OF THE WHITE RIVER. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:145. 1985. Abstract only. FR 32(1)
[Colo. Coop. Fish Wildl. Res. Unit, Colo. State Univ., Fort Collins 80523]

87-000952 Chessman, B. C. IMPACT OF THE 1983 WILDFIRES ON RIVER WATER QUALITY IN EAST GIPPSLAND, VICTORIA. *Aust. J. Mar. Freshwater Res.* 37(3):399-420. 1986. FR 32(1)
[Latrobe Valley Water Sewage Bd., P.O. Box 348, Traralgon, Vic. 3844, Australia]

87-000953 Cole, D. H. REVIVING THE FEDERAL POWER ACT'S COMPREHENSIVE PLAN REQUIREMENT: A HISTORY OF NEGLECT AND PROSPECTS FOR THE FUTURE. *Environ. Law* 16(3):639-671. 1986. FR 32(1)

87-000954 Davis, J. W. OPTIONS FOR MANAGING LIVESTOCK IN RIPARIAN HABITATS. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:290-297. 1986. FR 32(1)
[U.S. For. Serv., Tonto Natl. For., Phoenix, AZ]

87-000955 Eckberg, D. K. CUMULATIVE IMPACTS OF HYDROPOWER DEVELOPMENT UNDER NEPA. *Environ. Law* 16(3):673-703. 1986. FR 32(1)
[Hart, Crowser & Assoc., Seattle, WA]

87-000956 Edwards, J. P. TREE AND SHRUB PLANTING ALONG CONSTRUCTED STREAM CHANNELS IN NORTH CAROLINA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:601-606. 1984. FR 32(1)
[U.S. SCS , 310 New Bern Ave., Raleigh, NC 27601]

87-000957 Glover, R. D. TROUT STREAM REHABILITATION IN THE BLACK HILLS OF SOUTH DAKOTA. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 7-15. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[S. Dak. Game Fish Parks, 3305 W. South St., Rapid City 57702]

87-000958 Hair, D. E.; R. Stowell and W. Paradis. TO HELL AND BACK: REHABILITATION OF A PLACER MINED STREAM. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 145-152. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[U.S. For. Serv., P.O. Box 416, Elk City, ID 83525]

87-000959 Harvey, B. C. EFFECTS OF SUCTION GOLD DREDGING ON FISH AND INVERTEBRATES IN TWO CALIFORNIA STREAMS. *N. Am. J. Fish. Manage.* 6(3):401-409. 1986. FR 32(1)
[Univ. Okla., Biol. Stn., Kingston 73439]

HABITAT ALTERATIONS (CONTINUED)

87-000960 Hulbert, P. J. LONGEVITY AND MAINTENANCE REQUIREMENTS OF STREAM IMPROVEMENT STRUCTURES IN NEW YORK WATERS. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop.* 1986. p. 199-207. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[N.Y. State Dep. Environ. Conserv., 50 Wolf Rd., Albany, NY 12233]

87-000961 Hunt, R. L. AN EVALUATION OF BRUSH BUNDLES AND HALF-LOGS TO ENHANCE CARRYING CAPACITY OF TWO BROWN TROUT STREAMS. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 31-62. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105 FR 32(1)
[Wis. Dep. Nat. Resour., Bur. Res., Stratton Lake Rd., Rt. 1, Box 589, Waupaca, WI 54981]

87-000962 Kober, W. W. and S. E. Kehler. AN ANALYSIS OF DESIGN FEATURES IN MITIGATING HIGHWAY CONSTRUCTION IMPACTS ON STREAMS. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop.* 1986. p. 221-232. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105 FR 32(1)
[Pa. Dep. Trans., 1113 Transportation & Safety Building, Harrisburg, PA 17120]

87-000963 Lake, D. J. and F. P. Richards. TROUT HABITAT ENHANCEMENT RELATIVE TO RESERVOIR DEVELOPMENT PLANNING. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 133-144. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105 FR 32(1)
[Environ. Div., Chas. T. Main, Inc., Prudential Cent., Boston, MA 02199]

87-000964 Landgraf, K. G. LONG TERM EFFECTS OF GABION STRUCTURES ON STREAMBANK STABILIZATION, NORTH RIVER, VIRGINIA. *In: J. G. Miller and J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop.* 1986. p. 209-219. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[N.Y. State Dep. Environ. Conserv., 50 Wolf Rd., Albany, NY 12233]

87-000965 Ming, C. L. ARTIFICIAL REEFS. *Singapore Sci.* 12(2):61-64. 1986. FR 32(1)
[Zool. Dep., Natl. Univ. Singapore, Singapore]

87-000966 Mohn, L. O. and P. E. Bugas. STREAM CHANNEL MODIFICATION METHODS FOR PROTECTION AND ENHANCEMENT OF FISHERIES HABITAT. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 183-190. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[Va. Comm. Game Inland Fish., Rt. 6, Box 484-A, Staunton 24401]

87-000967 Nelson, K. L. and J. C. Brorawa. EFFECTS OF EXCAVATION AND SNAGGING ON THE FISH POPULATIONS OF A COASTAL STREAM IN NORTH CAROLINA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:607-614.

HABITAT ALTERATIONS (CONTINUED)

87-000967 CONTINUED 1984. FR 32(1)
[N. C. Wildl. Resour. Comm., Raleigh 27611]

87-000968 Ohta, Y.; A. Tsuchiya and M. Nishimura. EVALUATION METHODS TO ESTIMATE THE INFLUENCE OF MAN-MADE UNDERWATER SOUND ON FISH BEHAVIOR. *IN: W. Kato, (ed.). Ocean Space Utilization '85. Proc. Int. Symp. Nihon Univ., Tokyo, Japan, June 1985. Vol. 1.* p. 609-616. 1985. FR 32(1)
[Sonar, Eng., Oki Elec. Ind. Co., Ltd., Shibaura, Minato-ku, Tokyo 108, Japan]

87-000969 Owens, O. D. PORCUPINES & TRIANGLES: RESTORATION OF A DREDGED LIMESTONE STREAM. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop.* 1986. p. 233-238. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[Valley Forge Trout Unlimited, American Baptist Natl. Ministries, Valley Forge, PA 19482-0857]

87-000970 Platts, W. S. PUBLIC AND PRIVATE RANGELAND MANAGEMENT: AN OVERVIEW. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:261-264. 1986. FR 32(1)
[U.S. For. Serv., Intermountain Res. Stn., Boise, ID]

87-000971 Portt, C. B.; E. K. Balon and D. L. G. Noakes. BIOMASS AND PRODUCTION OF FISHES IN NATURAL AND CHANNELIZED STREAMS. *Can. J. Fish. Aquatic Sci.* 43(10):1926-1934. 1986. In English with French summ. FR 32(1)
[E. K. Balon: Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-000972 Pott, D. B.; J. J. Pizzimenti and J. T. Huiting. REVERSAL OF HABITAT DEGRADATION IN A NORTHERN ILLINOIS STREAM. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 17-29. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105 FR 32(1)
[Harza Eng. Co., 150 S. Wacker Dr., Chicago, IL 60606]

87-000973 Prichard, D. E. and L. L. Upham. TEXAS CREEK RIPARIAN ENHANCEMENT STUDY. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:298-303. 1986. FR 32(1)
[U.S. Bur. Land Manage., Canon City, CO]

87-000974 Richards, K. R.; R. J. Dent, Jr. and W. H. Dieffenbach. FISHERIES PROBLEMS ASSOCIATED WITH THE TRUMAN DAM PUMPED STORAGE HYDROELECTRIC PROJECT IN WEST CENTRAL MISSOURI. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 247-254. 1986. FR 32(1)
[Mo. Dep. Conserv., P.O. Box 180, Jefferson City 65102]

87-000975 Rosgen, D. and B. L. Fittante. FISH HABITAT STRUCTURES--A SELECTION GUIDE USING STREAM CLASSIFICATION. *In: J. G. Miller, J. A Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 163-179. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105 FR 32(1)
[Wildland Hydrol. Consult., 7070 South County Rd. 5, Fort Collins, CO 80525]

HABITAT ALTERATIONS (CONTINUED)

87-000976 Spotts, D. E. STANDING STOCK OF FISHES BEFORE AND AFTER A CHANNEL RELOCATION IN BLOCKHOUSE CREEK, LYCOMING COUNTY, PENNSYLVANIA. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 85-91. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[Pa. Fish Comm., 450 Robinson Lane, Bellefonte 16823-9616]

87-000977 Standage, R. W. STREAMBANK STABILIZATION USING GEOMATRIX MATTING--SIMPSON CREEK, VIRGINIA. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop.* 1986. p. 191-198. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[U.S. For. Serv., P. O. Box 233, Harrisburg, VA 22801]

87-000978 Stuber, R. J. STREAM HABITAT IMPROVEMENT EVALUATION: AN ALTERNATIVE APPROACH. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 153-166. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[U.S. For. Serv., 240 West Prospect, Fort Collins, CO 80526]

87-000979 Thomas, A. E. RIPARIAN PROTECTION/ENHANCEMENT IN IDAHO. *Rangelands* 8(5):224-227. 1986. FR 32(1)
[BLM, Idaho State Off., 3380 Americana Terrace, Boise, ID 83706]

87-000980 Van Haveren, B. P. and W. L. Jackson. CONCEPTS IN STREAM RIPARIAN REHABILITATION. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:280-289. 1986. FR 32(1)
[U.S. Bur. Land Manage., Denver, CO]

87-000981 Wagstaff, F. J. ECONOMIC ISSUES OF GRAZING AND RIPARIAN AREA MANAGEMENT. *Trans. N. Am. Wildl. Nat. Resour. Conf.* 51:272-279. 1986. FR 32(1)
[U.S. For. Serv., Intermountain Res. Stn., Provo, UT]

87-000982 Wang, C. and O. Sato. HYDRODYNAMIC CHARACTERISTICS IN SIMPLIFIED COMPONENTS OF ARTIFICIAL REEF STRUCTURES. *Bull. Fac. Fish. Hokkaido Univ.* 37(3):190-206. 1986. FR 32(1)
[Lab. Fish. Gear Eng., Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-000983 Webb, J. W. and R. M. Reed. LONG-TERM IMPACTS OF SMALL HYDROPOWER DIVERSIONS ON EASTERN AND WESTERN SIERRAN STREAM RIPARIAN ECOSYSTEMS: PROCEDURES AND PROBLEMS OF ASSESSMENTS. *Prog. IV Int. Congr. Ecol.* p. 346. 1986. Abstract only. FR 32(1)
[Oak Ridge Natl. Lab., Oak Ridge, TN 37831]

87-000984 Wildish, D. J.; D. L. Peer and D. A. Greenberg. BENTHIC MACROFAUNAL PRODUCTION IN THE BAY OF FUNDY AND THE POSSIBLE EFFECTS OF A TIDAL POWER BARRAGE AT ECONOMY POINT - CAPE TENNY. *Can. J. Fish. Aquatic Sci.* 43(12):2410-2417. 1986. In English with French summ. FR 32(1)
[St. Andrews Biol. Stn., St. Andrews, NB E0G 2X0, Canada]

87-000985 Wilds, L. J. A NEW PERSPECTIVE IN INSTITUTIONAL ANALYSIS: THE LEGAL-INSTITUTIONAL ANALYSIS MODEL (LIAM). *U.S. Fish Wildl. Serv. Biol. Rep.* 86(9):vi+48p. 1986. FR 32(1)
[U.S. FWS, NEC, Fort Collins, CO 80526-2899]

HARVEST, CREEL CENSUS, ETC.

87-000986 FAO of the UN. 1984 YEARBOOK OF FISHERY STATISTICS. *FAO Fish. Ser.* 25. vii+451p. 1986. FR 32(1)
[Rome, Italy]

87-000987 Ferguson, M. O. CHARACTERISTICS OF RED DRUM AND SPOTTED SEATROUT COMMERCIAL FISHERMAN IN TEXAS. *N. Am. J. Fish. Manage.* 6(3):344-358. 1986. FR 32(1)
[Coastal Fish. Br., Tex. Parks Wildl. Dep., 4200 Smith School Rd., Austin 78744]

87-000988 Garner, K. E.; F. A. Harris and S. L. Van Horn. CATCH/RELEASE BIAS IN REWARD TAG EXPLOITATION STUDIES. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:579-582. 1984. FR 32(1)
[N.C. Wildl. Resour. Comm., Raleigh 27611]

87-000989 Harrell, D. COMPARISON OF CREEL AND PHYSICAL/CHEMICAL PARAMETERS FOR LAKE NORMAN, NORTH CAROLINA, AND LAKE WYLIE, NORTH CAROLINA AND SOUTH CAROLINA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:532-548. 1984. FR 32(1)
[Duke Power Co., Prod. Environ. Serv., Rt. 4, Box 531, Hunterville, NC 28078]

87-000990 Jernejcic, F. WALLEYE MIGRATION THROUGH TYGART DAM AND ANGLER UTILIZATION OF THE RESULTING TAILWATER AND LAKE FISHERIES. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 294-300. 1986. FR 32(1)
[W. Va. Dep. Nat. Resour., Div. Wildl. Resour., Fairmont 26554]

87-000991 Norman, M. D. RESULTS OF LAKE POWELL, VIRGINIA, CREEL CENSUS FROM 1970 TO 1983. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:562-578. 1984. FR 32(1)
[Va. Comm. Game Inland Fish., Richmond 23230-1104]

87-000992 Oliver, M. L. THE RAINBOW TROUT FISHERY IN THE BULL SHOALS-NORFOLK TAILWATERS, ARKANSAS, 1971-81. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:549-561. 1984. FR 32(1)
[Fish. Div., Ark. Game Fish Comm., Little Rock 72205]

87-000993 Schoolmaster, F. A. BANK- AND FLOAT-ANGLER PERCEPTIONS OF USE LEVELS ON THE MADISON RIVER, MONTANA. *N. Am. J. Fish. Manage.* 6(3): 430-438. 1986. FR 32(1)
[Dep. Geogr., P.O. Box 5277, North Tex. State Univ., Denton 76203]

87-000994 Stokes, R. THE ECONOMICS OF MANAGEMENT AND ALLOCATION: EXPERIENCE FROM OUTSIDE U.S. FISHERIES MANAGEMENT. *Alaska Sea Grant Rep.* 85-2. p. 127-148. 1985. FR 32(1)
[Univ. Wash., Seattle]

87-000995 Van Den Avyle, M. J. MEASURING ANGLER EFFORT, SUCCESS, AND HARVEST. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 57-64. 1986. FR 32(1)
[Coop. Fish. Wildl. Res. Unit, Sch. For. Resour., Univ. Ga., Athens 30602]

HARVEST, CREEL CENSUS, ETC. (CONTINUED)

87-000996 Weixelman, M. G. and A. W. Green. INCREASING CREEL SURVEY EFFICIENCY: EARLY TERMINATION OF SURVEY ON INACTIVE DAYS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:583-589. 1984. FR 32(1)
[Tex. Parks Wildl. Dep., Coastal Fish. Br., Star Route 385, Palacios 77465]

REGULATIONS

87-000997 Dent, R. J., Jr. METHODS AND PARAMETERS USED IN EVALUATING BASS LENGTH LIMITS ON POMME DE TERRE LAKE, MISSOURI. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 65-72. 1986. FR 32(1)
[Mo. Dep. Conserv., 1104 S. Grand St., Sedalia 65301]

87-000998 Dent, R. J., Jr. RESULTS OF A BLACK BASS 15-INCH MINIMUM LENGTH LIMIT ON POMME DE TERRE LAKE, MISSOURI. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 309-310. 1986. Abstract only. FR 32(1)
[Mo. Dep. Conserv., 1104 S. Grand, Sedalia 65301]

87-000999 Goddard, J. A. and L. C. Redmond. STOCKTON LAKE: PROLONGING THE "BOOM," MANAGING A NEW LARGE RESERVOIR WITH MINIMUM LENGTH LIMITS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 203-210. 1986. FR 32(1)
[Div. Fish., Mo. Dep. Conserv., Jefferson City 65102]

87-001000 Jensen, T. C. THE UNITED STATES-CANADA PACIFIC SALMON INTERCEPTION TREATY: AN HISTORICAL AND LEGAL OVERVIEW. *Environ. Law* 16(3):363-422. 1986. FR 32(1)
[Columbia River Inter-Tribal Fish Comm., Portland, OR]

87-001001 Martin, C. and T. B. Hess. THE USE OF A "SLOT" LENGTH LIMIT REGULATION FOR LARGEMOUTH BASS ON A NEW GEORGIA RESERVOIR. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 306. 1986. Abstract only. FR 32(1)
[Dep. Nat. Resour., Game Fish Div., Atlanta, GA 30334]

87-001002 Mosher, T. A REVIEW OF THE IMPACTS OF LENGTH LIMITS ON BLACK BASS POPULATIONS IN KANSAS STATE FISHING LAKES WITH EMPHASIS ON LYON STATE FISHING LAKE. *Kans. Fish. I&D* No. 86-5. 44p. 1986. FR 32(1)
[Kans. Fish Game Comm., P.O. Box 1525, Emporia 66801]

87-001003 Mullady, E. HOW ABOUT A 28" LIMIT ON BASS? *Farm Pond Harvest* 20(4):4. 1986. FR 32(1)

87-001004 Novinger, G. D. EFFECTS OF A 15-INCH MINIMUM LENGTH LIMIT ON LARGEMOUTH BASS AND SPOTTED BASS FISHERIES IN TABLE ROCK LAKE, MISSOURI. *In: G. E. Hall and M. J. Van Den Avlye (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 308-309. 1986. Abstract only. FR 32(1)
[Mo. Dep. Conserv., 1110 College Ave., Columbia 65201]

REGULATIONS (CONTINUED)

87-001005 Redmond, L. C. THE HISTORY AND DEVELOPMENT OF WARMWATER FISH HARVEST REGULATIONS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 186-195. 1986. FR 32(1)
[Div. Fish., Mo. Dep. Conserv., Jefferson City 65102]

87-001006 Richards, K. EVALUATION OF A 15-INCH MINIMUM LENGTH LIMIT FOR BLACK BASS AT LAKE OF THE OZARKS, MISSOURI. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 309. 1986. Abstract only. FR 32(1)
[Mo. Dep. Conserv., 1104 S. Grand, Sedalia 65301]

87-001007 Smith, W. B.; W. R. Chapman and K. E. Garner. THE EFFECT OF A MODIFIED-SLOT REGULATION ON LARGEMOUTH BASS HARVEST AT LAKE NORMAN. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 306-307. 1986. Abstract only. FR 32(1)
[N.C. Wildl. Resour. Comm., 512 N. Salisbury St., Raleigh 27611]

87-001008 Zagar, A. J. and D. J. Orth. EVALUATION OF HARVEST REGULATIONS FOR LARGEMOUTH BASS POPULATIONS IN RESERVOIRS: A COMPUTER SIMULATION. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 218-226. 1986. FR 32(1)
[Dep. Fish. Wildl. Sci., VPI&SU, Blacksburg, VA 24061]

FISH CONTROL AND REMOVAL

87-001009 Crawford, T. THE EFFECTS OF COMMERCIAL FISH REMOVAL BY NETTING ON SPORT FISH POPULATIONS IN TWO ARKANSAS RESERVOIRS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 310. 1986. Abstract only. FR 32(1)
[Ark. Game Fish Comm., Natural Resources Dr., Little Rock 72205]

87-001010 Elsen, D. S.; G. B. Sloane and D. C. Peterson. BROOK TROUT RECLAMATION BY MAN-MADE BARRIERS AND ELECTROSHOCKING IN SMALL STREAMS OF EAST TENNESSEE. *In: J. G. Miller and J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 77-84. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P. O. Box 1673, Harrisburg 17105. FR 32(1)
[U.S. For. Serv., 1551 Umatilla Rd., Eustis, FL 32726]

87-001011 Nilsson, N. CONSEQUENCES OF THE ROTENONE TREATMENT OF A SUBARCTIC SWEDISH LAKE ON THE FISH AND ZOOPLANKTON COMMUNITIES. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 120-127. 1985. FR 32(1)
[Inst. Freshwater Res., S-170 11, Drottningholm, Sweden]

87-001012 Soltero, R. A.; D. G. Nichols; A. F. Gasperino and M. A. Beckwith. LAKE RESTORATION: MEDICAL LAKE, WASHINGTON. *J. Freshwater Ecol.* 1(2):155-166. 1981. FR 32(1)

87-001013 Stephen, J. L. EFFECTS OF COMMERCIAL HARVEST ON THE FISH COMMUNITY OF LOVEWELL RESERVOIR, KANSAS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.*

FISH CONTROL AND REMOVAL (CONTINUED)

87-001013 CONTINUED p. 211-217. 1986. FR 32(1)
[Kans. Fish Game Comm., 511 Cedar, Concordia 66901]

MARKING AND TAGGING

87-001014 Eames, M. J. MARKED GROUP SIZE, SAMPLING RATE, AND OPTIMAL RESOURCE ALLOCATION IN CODED-WIRE TAG STUDIES. *Wash. Dep. Fish. Tech. Rep.* 93. p. 20-28. 1986. FR 32(1)
[Sea-First Bank, Seattle, WA]

87-001015 Eames, M. J. VARIANCE ESTIMATES FOR ESTIMATED SALMON CODED-WIRE TAG RECOVERIES. *Wash. Dep. Fish. Tech. Rep.* 93. p. 1-19. 1986. FR 32(1)
[Sea-First Bank, Seattle, WA]

87-001016 Hansen, H. J. M. and A. T. A. Fattah. LONG-TERM TAGGING OF ELVERS, *ANGUILLA ANGUILLA*, WITH RADIOACTIVE EUROPIUM. *J. Fish Biol.* 29(5):535-540. 1986. FR 32(1)
[Riso Natl. Lab., DK 4000 Roskilde, Denmark]

87-001017 Klar, G. T. and N. C. Parker. MARKING FINGERLING STRIPED BASS AND BLUE TILAPIA WITH CODED WIRE TAGS AND MICROTAGGANTS. *N. Am. J. Fish. Manage.* 6(3):439-444. 1986. FR 32(1)
[U.S. FWS, Southeast. Fish Cult. Lab., Rt. 3, Box 86, Marion, AL 36756]

87-001018 Savitz, J.; P. A. Fish and R. Weszely. HABITAT UTILIZATION AND MOVEMENT OF FISH AS DETERMINED BY RADIO-TELEMETRY. *J. Freshwater Ecol.* 2(2):165-174. 1983. FR 32(1)

STOCKING AND INTRODUCTIONS

87-001019 Boxrucker, J. EVALUATION OF STOCKING INLAND SILVERSIDES AS SUPPLEMENTAL FORAGE FOR LARGEMOUTH BASS AND WHITE CRAPPIE. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 149-155. 1986. FR 32(1)
[Okla. Dep. Wildl. Conserv., 1416 Planck, Norman 73069]

87-001020 Boxrucker, J. EVALUATION OF SUPPLEMENTAL STOCKING OF LARGEMOUTH BASS AS A MANAGEMENT TOOL IN SMALL IMPOUNDMENTS. *N. Am. J. Fish. Manage.* 6(3):391-396. 1986. FR 32(1)
[Okla. Dep. Wildl. Conserv., Fish. Res. Lab., 1416 Planck St., Norman, OK 73069]

87-001021 Brooks, J. E.; P. C. March and W. L. Minckley. RE-INTRODUCTION AND MONITORING OF RAZORBACK SUCKER IN THE LOWER COLORADO RIVER BASIN. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:203. 1985. Abstract only. FR 32(1)
[Ariz. Game Fish Dep., Phoenix]

STOCKING AND INTRODUCTIONS (CONTINUED)

87-001022 Bulow, F. J.; L. Swann and J. R. Estes. IMPACT OF RAINBOW TROUT INTRODUCTION ON A BIG SOUTH FORK STREAM FISHERY. *Tenn. Tech. J.* 20:43. 1985. Abstract only. FR 32(1)
[Dep. Biol., Tenn. Tech. Univ., Cookville]

87-001023 Champeau, T. R. SURVIVAL OF HYBRID STRIPED BASS IN CENTRAL FLORIDA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:446-449. 1984. FR 32(1)
[Fla. Game Fresh Water Fish Comm., 3900 Drane Field Rd., Lakeland 33803]

87-001024 Dumont, H. J. THE TANGANYIKA SARDINE IN LAKE KIVU: ANOTHER ECODISASTER FOR AFRICA? *Environ. Conserv.* 13(2):143-148. 1986. FR 32(1)
[Zool. Inst., State Univ. Gent, 9000 Gent, Belgium]

87-001025 Filipek, S. P. and M. D. Gibson. EVALUATION OF SUPPLEMENTAL STOCKING OF FINGERLING LARGEMOUTH BASS IN LAKE CORONADO, ARKANSAS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 313. 1986. Abstract only. FR 32(1)
[Ark. Game Fish Comm., Rt. 1, Box 477, Hot Springs 71901]

87-001026 Hitchins, J. R. and W. G. A. Samis. SUCCESSFUL REPRODUCTION IN INTRODUCED LAKE TROUT IN 10 NORTHEASTERN ONTARIO LAKES. *N. Am. J. Fish. Manage.* 6(3):372-375. 1986. FR 32(1)
[R.R. 2, Camalachie, ON NON 1EO, Canada]

87-001027 Hughes, N. F. CHANGES IN THE FEEDING BIOLOGY OF THE NILE PERCH, *LATES NILOTICUS* (L.) (PISCES: CENTROPOMIDAE), IN LAKE VICTORIA, EAST AFRICA SINCE ITS INTRODUCTION IN 1960, AND ITS IMPACT ON THE NATIVE FISH COMMUNITY OF THE NYANZA GULF. *J. Fish Biol.* 29(5):541-548. 1986. FR 32(1)
[Alaska Coop. Fish. Res. Unit, Arctic Health Res. Bldg., Univ. Alaska, Fairbanks 99775]

87-001028 Hulbert, P. J. POST-STOCKING PERFORMANCE OF HATCHERY-REARED YEARLING BROWN TROUT. *N.Y. Fish Game J.* 32(1):1-8. 1985. FR 32(1)
[N.Y. State Dep. Environ. Conserv., Stanford 12167]

87-001029 Jones, T. W. ESTABLISHMENT OF A WALLEYE POPULATION BY STOCKING IN GASTON RESERVOIR. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 312. 1986. Abstract only. FR 32(1)
[Rt. 3, Box 214, Asheville, NC 28806]

87-001030 Keith, W. E. A REVIEW OF INTRODUCTION AND MAINTENANCE STOCKING IN RESERVOIR FISHERIES MANAGEMENT. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 144-148. 1986. FR 32(1)
[Fish. Div., Ark. Game Fish Comm., Little Rock 72205]

87-001031 Khalilov, F. S. and M. N. Beloborodova. OPTIMIZATION OF FISH COMMUNITIES IN DOMESTIC WATER SUPPLY RESERVOIRS. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 26(3):138-142. 1986. FR 32(1)
[ToKaspNIIRKH, Krasnovodsk, USSR]

STOCKING AND INTRODUCTIONS (CONTINUED)

87-001032 Kohler, C. C.; J. J. Ney and W. E. Kelso. FILLING THE VOID: DEVELOPMENT OF A PELAGIC FISHERY AND ITS CONSEQUENCES TO LITTORAL FISHES IN A VIRGINIA MAINSTREAM RESERVOIR. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 166-177. 1986. FR 32(1)
[Fish. Res. Lab., South. Ill. Univ., Carbondale 62901]

87-001033 Krieger, D. A. and S. Puttman. EVALUATION OF SUPPLEMENTAL STOCKING OF YEARLING LARGEMOUTH BASS IN CHATFIELD RESERVOIR, COLORADO. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 311. 1986. Abstract only. FR 32(1)
[Colo. Div. Wildl., 317 W. Prospect, Fort Collins 80526]

87-001034 Nickelson, T. E.; M. F. Solazzi and S. L. Johnson. USE OF HATCHERY COHO SALMON *(ONCORHYNCHUS KISUTCH)* PRESMOLTS TO REBUILD WILD POPULATIONS IN OREGON COASTAL STREAMS. *Can. J. Fish. Aquatic Sci.* 43(12):2443-2449. 1986. In English with French summ. FR 32(1)
[Oreg. Dep. Fish Wildl., Oreg. State Univ., Corvallis 97331]

87-001035 Nilsson, N. THE NICHE CONCEPT AND THE INTRODUCTION OF EXOTICS. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 128-135. 1985. FR 32(1)
[Inst. Freshwater Res., S-170 11 Drottningholm, Sweden]

87-001036 Rohrer, R. L. and G. H. Thorgaard. EVALUATION OF TWO HYBRID TROUT STRAINS IN HENRY'S LAKE, IDAHO, AND COMMENTS ON THE POTENTIAL USE OF STERILE TRIPLOID HYBRIDS. *N. Am. J. Fish. Manage.* 6(3):367-371. 1986. FR 32(1)
[Idaho Dep. Fish Game, Boise 83714]

87-001037 Tipping, J. EFFECT OF RELEASE SIZE ON RETURN RATES OF HATCHERY SEA-RUN CUTTHROAT TROUT. *Prog. Fish-Cult.* 48(3):195-197. 1986. FR 32(1)
[Wash. Dep. Game, 600 North Capitol Way, Olympia 98504]

87-001038 Turner, W. M. EVALUATION OF THE STRIPED BASS X WHITE BASS HYBRID IN MONTROSE LAKE, MISSOURI. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 311-312. 1986. Abstract only. FR 32(1)
[Mo. Dep. Conserv., P.O. Box 180, Jefferson City, 65101]

87-001039 Watanabe, S. RESTOCKING EFFECTS ON THE TWO COMPETING SPECIES SYSTEM, INCLUDING A NONLINEARLY REGULATED SPECIES POPULATION. *J. Tokyo Univ. Fish.* 72(2):57-63. 1985. FR 32(1)
[Lab. Fish. Biol., Tokyo Univ. Fish., 5-7 Konan 4, Minato-ku, Tokyo 108, Japan]

87-001040 Young, N. ESTABLISHMENT OF A HYBRID *MORONE* FISHERY IN THE APALACHICOLA RIVER, FLORIDA. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:450-454. 1984. FR 32(1)
[Fish. Manage., Fla. Game Fresh Water Fish Comm., De Funiak Springs 32433]

FISHING GEAR AND TECHNIQUES

87-001041 Hale, M. M.; J. E. Crumpton and D. J. Renfro. AN INEXPENSIVE LOW VOLTAGE ELECTROFISHING DEVICE FOR COLLECTING CATFISH. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:342-345. 1984. FR 32(1)
[Fla. Game Fresh Water Fish Comm., Fish. Res. Lab., P.O. Box 1903, Eustis 32727-1903]

87-001042 Hall, T. J. ELECTROFISHING CATCH PER HOUR AS AN INDICATOR OF LARGEMOUTH BASS DENSITY IN OHIO IMPOUNDMENTS. *N. Am. J. Fish. Manage.* 6(3):397-400. 1986. FR 32(1)
[Ohio Dep. Nat. Resour., Div. Wildl., Columbus 43215]

87-001043 Hammar, J. and O. Filipsson. ECOLOGICAL TESTFISHING WITH THE LUNDGREN GILLNETS OF MULTIPLE MESH SIZE: THE DROTTNINGHOLM TECHNIQUE MODIFIED FOR NEWFOUNDLAND ARCTIC CHAR POPULATIONS. *Inst. Freshwater Res. Drottningholm Rep.* No. 62. p. 12-35. 1985. FR 32(1)
[Fish. Res. Soc., Dep. Fish. Oceans, P.O. Box 5667, St. John's, NF A1C 5X1, Canada]

87-001044 Hayashi, Y. and W. Kato. THEORETICAL ANALYSIS OF AN INHOMOGENEOUS NET: ON THE EFFECT OF FISH TO A FISHING NET WHEN IT IS CAUGHT BY THE NET. *IN: W. Kato, (ed.). Ocean Space Utilization '85. Proc. Int. Symp. Nihon Univ., Tokyo, Japan, June 1985. Vol. 1.* p. 617-624. 1985. FR 32(1)
[Dep. Gen. Educ., Coll. Sci. Technol., Nihon Univ., Narashinodai, Funabashi, Chiba 274 Japan]

87-001045 Hicks, B. METHODS FOR ESTIMATING FRESHWATER FISHERIES RESOURCES. *N.Z. Minist. Agric. Fish. Water Soil Misc. Publ.* No. 83. p. 347-359. 1984. FR 32(1)
[Fish. Res. Div., MAF, Wellington, New Zealand]

87-001046 Johnstone, A. D. F. and A. M. Mackie. LINE FISHING RESEARCH. *Scott. Fish. Bull.* 49. p.7-14. 1986. FR 32(1)
[Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

87-001047 Leber, K. M. and H. S. Greening. COMMUNITY STUDIES IN SEAGRASS MEADOWS: A COMPARISON OF TWO METHODS FOR SAMPLING MACROINVERTEBRATES AND FISHES. *NOAA Fish. Bull.* 84(2):443-450. 1986. FR 32(1)
[Oceanic Inst., Makapuu Point, Waimanalo, HI 96795]

87-001048 Main, J. and G. I. Sangster. ARE SEPARTOR TRAWLS EFFECTIVE? *Scott. Fish. Bull.* 49. p.3-7. 1986. FR 32(1)
[Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

87-001049 Mason, J. C. and A. C. Phillips. AN IMPROVED OTTER SURFACE SAMPLER. *NOAA Fish. Bull.* 84(2):480-484. 1986. FR 32(1)
[Pac. Biol. Stn., Nanaimo, BC V9R 5K6, Canada]

87-001050 Miura, T.; S. Shimizu; S. Nishiyama and O. Sato. [ANALYSIS OF FISH BEHAVIOR IN THE EXPERIMENTAL TRAP.] *Bull. Jpn. Soc. Sci. Fish.* 52(7):1107-1113. 1986. In Japanese with English summ. FR 32(1)
[Fac. Fish., Hokkaido Univ., Hakodate 041, Japan]

87-001051 Robertson, J. H. B. SQUARE MESH CODENDS. *Scott. Fish. Bull.* 49. p.15-16. 1986. FR 32(1)
[Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

FISHING GEAR AND TECHNIQUES (CONTINUED)

87-001052 Rogers, S. G.; H. T. Langston and T. E. Targett. ANATOMICAL TRAUMA TO SPONGE-CORAL REEF FISHES CAPTURED BY TRAWLING AND ANGLING. *NOAA Fish. Bull.* 84(3):697-704. 1986. FR 32(1)
[Coast. Resour. Div., Ga. Dep. Nat. Resour., 1200 Glynn Ave., Brunswick 31523]

87-001053 Rulifson, R. A. and J. E. Cooper. A METHOD TO DETERMINE MESH-SIZE SELECTIVITY IN COMMERCIAL MENHADEN PURSE SEINES. *N. Am. J. Fish. Manage.* 6(3):359-366. 1986. FR 32(1)
[Inst. Coast. Mar. Resour., East Carolina Univ., Greenville, NC 27834]

87-001054 Sagua, V. O. and A. Gubio. A STUDY OF THE LENGTH AT MATURITY AND HOOKS/GILL NET MESH SELECTION IN *CLARIAS LAZERA* FROM LAKE CHAD. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:193-199. 1983(1986). FR 32(1)
[Lake Chad Res. Inst., Maiduguri, Nigeria]

87-001055 Udolisa, R. E. K. and P. Lebo. CHEMICAL NARCOSING OF FISH IN NORTHERN CROSS RIVER. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:105-107. 1983(1986). FR 32(1)
[Nigerian Inst. Oceanogr. Mar. Res., Victoria Island, Lagos, Nigeria]

87-001056 Ueno, M. [MESH RETENTION OF FISH EGGS AND LARVAE IN PLANKTON NET.] *Bull. Jpn. Soc. Sci. Fish.* 52(8):1295-1300. 1986. In Japanese with English summ. FR 32(1)
[Fish. Res. Stn., Kyoto Univ., Marzuru 625, Japan]

87-001057 Yamane, T. and Y. Iitaka. THE VIRTUAL MASS OF PLANE NETS. *Bull. Jpn. Soc. Sci. Fish.* 52(7):1189-1197. 1986. FR 32(1)
[Dep. Fish., Fac. Agric., Kinki Univ., Higashiosaka, Osaka 577, Japan]

MATHEMATICS, STATISTICAL METHODS, AND MODELING

87-001058 Akamine, T. EXPANSION OF GROWTH CURVES USING A PERIODIC FUNCTION AND BASIC PROGRAMS BY MARQUARDT'S METHOD. *Bull. Jpn. Sea Reg. Fish. Res. Lab.* No. 36. p. 77-107. 1986. FR 32(1)
[Jpn. Sea Reg. Fish. Res. Lab., Suido-cho, Niigata 951, Japan]

87-001059 Atkinson, C. A. DISCRETE-TIME DIFFERENCE MODEL FOR SIMULATING INTERACTING FISH POPULATION DYNAMICS. *NOAA Fish. Bull.* 84(3):535-548. 1986. FR 32(1)
[Syst. Sci. Appl., Inc., 121 Via Pasqual, Redondo Beach, CA 90277]

87-001060 Jones, R. and C. P. Mathews. A NOTE ON THE EFFECT OF SELECTIVITY ON GROWTH AND MORTALITY ESTIMATES. *Kuwait Bull. Mar. Sci.* No. 7. p. 65-73. 1986. FR 32(1)
[Mar. Lab., Aberdeen, Scotland]

87-001061 Lo, N. C. H. MODELING LIFE-STAGE-SPECIFIC INSTANTANEOUS MORTALITY RATES, AN APPLICATION TO NORTHERN ANCHOVY, *ENGRAULIS MORDAX*, EGGS AND LARVAE. *NOAA Fish. Bull.* 84(2):395-407. 1986. FR 32(1)
[NMFS, P.O. Box 271, La Jolla, CA 92038]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

87-001062 MacCall, A. D. VIRTUAL POPULATION ANALYSIS (VPA) EQUATIONS FOR NONHOMOGENEOUS POPULATIONS, AND A FAMILY OF APPROXIMATIONS INCLUDING IMPROVEMENTS ON POPE'S COHORT ANALYSIS. *Can. J. Fish. Aquatic Sci.* 43(12):2406-2409. 1986. In English with French summ. FR 32(1)
[NMFS, P.O. Box 271, La Jolla, CA 92038]

87-001063 Maksimenov, V. V. THEORY OF FORMATION OF RECRUITMENT IN FISH. *Sov. J. Ecol. (Engl. Transl. Ekologiya)* 17(1):54-58. 1986. FR 32(1)
[Pac. Ocean Sci. Res. Inst. Fish. Oceanogr., Kamchatsky, USSR]

87-001064 McGuck, M. D.; D. J. Furnell and J. R. Brett. SOME REMARKS ON "MODEL OF MONTHLY MARINE GROWTH AND NATURAL MORTALITY FOR BABINE LAKE SOCKEYE SALMON *(ONCORHYNCHUS NERKA)*" BY FURNELL AND BRETT AND REPLY. *Can. J. Fish. Aquatic Sci.* 43(12):2535-2536. 1986. In English with French summ. FR 32(2)
[Inst. Anim. Resour. Ecol., Univ. British Columbia, 2204 Main Mall, Vancouver, BC V6T 1W5, Canada]

87-001065 Paine, R. T. SOME APPROACHES TO MODELING MULTISPECIES SYSTEMS. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 191-207. 1984. FR 32(1)
[Dep. Zool., Univ. Wash., Seattle 98195]

87-001066 Polovina, J. J. A VARIABLE CATCHABILITY VERSION OF THE LESLIE MODEL WITH APPLICATION TO AN INTENSIVE FISHING EXPERIMENT ON A MULTISPECIES STOCK. *NOAA Fish. Bull.* 84(2):423-428. 1986. FR 32(1)
[NMFS, P.O. Box 3830, Honolulu, HI 96812]

87-001067 Rose, K. A.; J. K. Summers; R. A. Cummins and D. G. Heimbuch. ANALYSIS OF LONG-TERM ECOLOGICAL DATA USING CATEGORICAL TIME SERIES REGRESSION. *Can. J. Fish. Aquatic Sci.* 43(12):2418-2426. 1986. In English with French summ. FR 32(1)
[Martin Marietta Environ. Syst., 9200 Rumsey Rd., Columbia, MD 21045]

87-001068 Roughgarden, J.; S. Gaines and Y. Iwasa. DYNAMICS AND EVOLUTION OF MARINE POPULATIONS WITH PELAGIC LARVAL DISPERSAL. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 111-128. 1984. FR 32(1)
[Hopkins Mar. Stn., Stanford Univ., Pacific Grove, CA 93950]

87-001069 Sen, A. R. METHODOLOGICAL PROBLEMS IN SAMPLING COMMERCIAL ROCKFISH LANDINGS. *NOAA Fish. Bull.* 84(2):409-421. 1986. FR 32(1)
[67 Ranch-Ridge Way N.W., Calgary, AB T3G 1Z8, Canada]

87-001070 Sugihara, G.; S. Garcia; J. A. Gulland; J. H. Lawton; H. Maske; R. T. Paine; T. Platt; E. Rachor; B. J. Rothschild; E. A. Ursin and B. F. K. Zeitzschel. ECOSYSTEMS DYNAMICS. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 131-153. 1984. FR 32(1)

87-001071 Turner, G. F. and F. A. Huntingford. A PROBLEM FOR GAME THEORY ANALYSIS: ASSESSMENT AND INTENTION IN MALE MOUTHBROODER CONTESTS. *Anim. Behav.* 34(4):961-970. 1986. FR 32(1)
[Sch. Anim. Biol., Univ. Coll. North Wales, Bangor, Gwynedd, U.K.]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

87-001072 Ueno, M. [VARIATION IN CATCHES OF *ENGRAULIS JAPONICUS* EGGS AND LARVAE AMONG REPEATED NET HAULS.] *Bull. Jpn. Soc. Sci. Fish.* 52(7):1149-1152. 1986. In Japanese with English summ. FR 32(1)
[Fish. Res. Stn., Kyoto Univ., Maizuru 625, Japan]

LAKE MANAGEMENT AND RESEARCH

87-001073 Coulter, G. W.; B. R. Allanson; M. N. Bruton; P. H. Greenwood; R. C. Hart; P. B. N. Jackson and A. J. Ribbink. UNIQUE QUALITIES AND SPECIAL PROBLEMS OF THE AFRICAN GREAT LAKES. *Environ. Biol. Fishes* 17(3):161-183. 1986. FR 32(1)
[Dep. Ichthyol. Fish. Sci., Rhodes Univ., P.O. Box 94, Grahamstown 6140, South Africa]

87-001074 Flain, M. THE LAKE COLERIDGE FISHERY. *N.Z. Minist. Agric. Fish. Fish. Environ. Rep.* No. 65. 1986. FR 32(1)

87-001075 Mires, J. M.; R. A. Soltero and G. R. Keizur. CHANGES IN THE ZOOPLANKTON COMMUNITY OF MEDICAL LAKE, WA, SUBSEQUENT TO ITS RESTORATION BY A WHOLE-LAKE ALUM TREATMENT AND THE ESTABLISHMENT OF A TROUT FISHERY. *J. Freshwater Ecol.* 1(2):167-178. 1981. FR 32(1)

87-001076 Tonn, W. M.; J. J. Magnuson; M. Rask and J. Toivonen. INTERCONTINENTAL COMPARISON OF SMALL FOREST LAKES: FISH ASSEMBLAGE PATTERNS IN FINLAND AND WISCONSIN. *Prog. IV Int. Congr. Ecol.* p. 332. 1986. Abstract only. FR 32(1)
[Univ. Alberta, Edmonton, AB T6G 2E9, Canada]

87-001077 Yaremchuk, G. C. B. RESULTS OF A NINE YEAR STUDY (1972-80) OF THE SPORT FISHING EXPLOITATION OF LAKE TROUT *(SALVELINUS NAMAYCUSH)* ON GREAT SLAVE AND GREAT BEAR LAKES, NWT: THE NATURE OF THE RESOURCE AND MANAGEMENT OPTIONS. *Can. Tech. Rep. Fish. Aquatic Sci.* No. 1436. vi+80p. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Oceans, Winnipeg, MB R3T 2N6, Canada]

RIVER AND STREAM MANAGEMENT AND RESEARCH

87-001078 Anderson, D. D.; D. B. Wilcox and D. R. McConville. PHYSICAL AND BIOLOGICAL INVESTIGATIONS OF THE MAIN CHANNEL BORDER HABITAT OF POOL 5A, ON THE UPPER MISSISSIPPI RIVER IN 1980. *U.S. Army Corps Eng. St. Paul Dist.* 385p. 1983. FR 32(1)
[U.S. Army Corps Eng., St. Paul Dist., 1135 U.S. Post Off. Custom House, St. Paul, MN 55101]

87-001079 Anderson, K. A.; T. L. Beitinger and E. G. Zimmerman. FORAGE FISH ASSEMBLAGES IN THE BRAZOS RIVER UPSTREAM AND DOWNSTREAM FROM POSSUM KINGDOM RESERVOIR, TEXAS. *J. Freshwater Ecol.* 2(1):81-88. 1983. FR 32(1)

87-001080 Austen, D. J. and D. J. Orth. ANGLER CATCHES FROM NEW RIVER, VIRGINIA AND WEST VIRGINIA, IN RELATION TO MINIMUM LENGTH LIMIT REGULATIONS. *Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies* 38:520-531. 1984. FR 32(1)
[Ill. State Nat. Hist. Surv., Nat. Resour. Bldg., 607 E. Peabody Dr., Champaign 61820]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

87-001081 Blumm, M. C. REEXAMINING THE PARITY PROMISE: MORE CHALLENGES THAN SUCCESSES TO THE IMPLEMENTATION OF THE COLUMBIA BASIN FISH AND WILDLIFE PROGRAM. *Environ. Law* 16(3):461-515. 1986. FR 32(1)
[Northwest. Sch. Law, Lewis and Clark Coll., 10015 S.W. Terwilliger Blvd., Portland, OR 97219]

87-001082 Bodi, F. L. FERC'S MID-COLUMBIA PROCEEDING: TEN YEARS AND STILL COUNTING. *Environ. Law* 16(3):555-581. 1986. FR 32(1)
[NOAA, Seattle, WA]

87-001083 Harrison, P. H. THE EVOLUTION OF A NEW COMPREHENSIVE PLAN FOR MANAGING COLUMBIA RIVER ANADROMOUS FISH. *Environ. Law* 16(3):705-729. 1986. FR 32(1)

87-001084 Lee, K. N. and J. Lawrence. ADAPTIVE MANAGEMENT: LEARNING FROM THE COLUMBIA RIVER BASIN FISH AND WILDLIFE PROGRAM. *Environ. Law* 16(3):431-460. 1986. FR 32(1)
[Univ. Wash., Seattle]

87-001085 Lothrop, R. C. THE MISPLACED ROLE OF COST-BENEFIT ANALYSIS IN COLUMBIA BASIN FISHERY MITIGATION. *Environ. Law* 16(3):517-554. 1986. FR 32(1)

87-001086 Maddux, H.; W. R. Persons and J. C. De Vos, Jr. CURRENT RESEARCH ON NATIVE FISHES OF THE GRAND CANYON. *Proc. Annu. Conf. West. Assoc. Fish Wildl. Agencies* 65:232. 1985. Abstract only. FR 32(1)
[Page, AZ]

87-001087 Rundquist, L. A.; N. E. Bradley and T. R. Jennings. PLANNING AND DESIGN OF FISH STREAM REHABILITATION. *In: J. G. Miller, J. A. Arway and R. F. Carline, eds. The 5th Trout Stream Habitat Improvement Workshop. Proceedings of a Workshop. 1986.* p. 119-132. Available @ $10.00 from Pennsylvania Fish Comm., Publ. Sect., P.O. Box 1673, Harrisburg 17105. FR 32(1)
[Entrix, Inc., 4794 Business Park Blvd., Suite 6, Anchorage, AK 99503]

87-001088 Seegert, G.; R. Lewis and R. Bockelman. AQUATIC STUDIES OF THE MAIN CHANNEL BORDER HABITAT OF POOL 5A ON THE UPPER MISSISSIPPI RIVER. *Ecol. Anal., Inc., Northbrook, IL* 1984. FR 32(1)
[Ecological Analysts, Inc., 612 Anthony Trail, Northbrook, IL 60062]

87-001089 Stewart, A. C. EVALUATION OF COLDWATER TRIBUTARIES FOR TROUT HABITATION IN THE LOWER NIOBRARA RIVER BASIN. *Nebr. Tech. Ser.* No. 15. 39p. 1985. FR 32(1)
[Nebr. Game Parks Comm., 2200 N. 33rd St., P.O. Box 30370, Lincoln 68503]

87-001090 Wright, J. M. THE ECOLOGY OF FISH OCCURRING IN SHALLOW WATER CREEKS OF A NIGERIAN MANGROVE SWAMP. *J. Fish Biol.* 29(4):431-441. 1986. FR 32(1)
[Zool. Dep., Kuwait Univ., P.O. Box 5969, Safat, Kuwait]

FARM POND AND SMALL IMPOUNDMENT MANAGEMENT AND RESEARCH

87-001091 Kadlec, J. A. EFFECTS OF FLOODING ON DISSOLVED AND SUSPENDED NUTRIENTS IN SMALL DIKED MARSHES. *Can. J. Fish. Aquatic Sci.* 43(10):1999-2008. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Wildl., Utah State Univ., Logan 84322-5200]

FARM POND AND SMALL IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

87-001092 Kadlec, J. A. INPUT-OUTPUT NUTRIENT BUDGETS FOR SMALL DIKED MARSHES. *Can. J. Fish. Aquatic Sci.* 43(10):2009-2016. 1986. In English with French summ. FR 32(1)
[Dep. Fish. Wildl., Utah State Univ., Logan 84322-5200]

87-001093 Olah, J.; V. R. P. Sinha; S. Ayyapan; C. S. Purushothaman and S. Radheyshyam. PRIMARY PRODUCTION AND FISH YIELDS IN FISH PONDS UNDER DIFFERENT MANAGEMENT PRACTICES. *Aquaculture* 58(1-2):111-122. 1986. FR 32(1)
[Fish. Res. Inst., H-5540 Szarvas, Hungary]

87-001094 Winter, R. L. AN ASSESSMENT OF LAKE CHUBSUCKERS (*ERIMYZON SUCCETTA* (GIRARD)) AS FORAGE FOR LARGEMOUTH BASS (*MICROPTERUS SALMOIDES* (LACEPEDE)) IN A SMALL NEBRASKA POND. *Nebr. Tech. Serv.* No. 16. 55p. 1984. FR 32(1)
[Nebr. Game Parks Comm., 2200 N. 33rd St., P.O. Box 30370, Lincoln 68503]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH

87-001095 Belusz, L. C. and D. J. Witter. WHY ARE THEY HERE AND HOW MUCH DO THEY SPEND? A SURVEY OF MUSKELLUNGE ANGLER CHARACTERISTICS, EXPENDITURES, AND BENEFITS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 39-45. 1986. FR 32(1)
[Mo. Dep. Conserv., P.O. Box 180, Jefferson City 65102]

87-001096 Brown, A. M. MODIFYING RESERVOIR FISH HABITAT WITH ARTIFICIAL STRUCTURES. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 98-102. 1986. FR 32(1)
[TVA, 451 Evans Bldg., Knoxville, TN 37902]

87-001097 Carline, R. F. INDICES AS PREDICTORS OF FISH COMMUNITY TRAITS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 46-56. 1986. FR 32(1)
[Ohio Coop. Fish. Res. Unit, Ohio State Univ., Columbus 43210]

87-001098 Chaudhary, R. S. FISH AND FISHERIES OF BAKOLORI RESERVOIR. *Proc. Annu. Conf. Fish. Soc. Nigeria* 3:60-67. 1983(1986). FR 32(1)
[Sokoto Rima River Basin Dev. Auth., Sokoto, Nigeria]

87-001099 Cole, R.; T. Ward; F. Ward and R. Deitner. A SIMULATION MODEL FOR MANAGING FISHERIES IN RESERVOIRS ON THE RIO GRANDE OF NEW MEXICO. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 18-27. 1986. FR 32(1)
[Dep. Fish. Wildl. Sci., N. M. State Univ., Las Cruces 88003]

87-001100 Fisher, W. L.; J. J. Charbonneau and M. J. Hay. ECONOMIC CHARACTERISTICS OF RESERVOIR FISHERIES. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 5-10. 1986. FR 32(1)
[Div. Prog. Plans, U.S. FWS, Washington, DC 20240]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

87-001101 Fritz, A. W. and H. L. Wight. COMMERCIAL FISHING AS A RESERVOIR MANAGEMENT TOOL. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 196-202. 1986. FR 32(1)
[Ill. Dep. Conserv., Carlyle 62231]

87-001102 Hall, G. E. and M. J. Van Den Avyle (eds.). RESERVOIR FISHERIES MANAGEMENT: STRATEGIES FOR THE 80'S. *Reservoir Comm., South. Div. Am. Fish. Soc.* x+327p. 1986. FR 32(1)

87-001103 Hickman, G. D. and K. W. Hevel. EFFECT OF A HYPOLIMNETIC DISCHARGE ON REPRODUCTIVE SUCCESS AND GROWTH OF WARMWATER FISH IN A DOWNSTREAM IMPOUNDMENT. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 286-293. 1986. FR 32(1)
[TVA, Div. Nat. Resour. Oper., Norris, TN 37828]

87-001104 Hoyt, R. D. and B. D. Laflin. MANAGEMENT OF SMALLMOUTH BUFFALO IN ROUGH RIVER LAKE, KENTUCKY, DURING THE FIRST TWENTY YEARS OF IMPOUNDMENT. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 308. 1986. Abstract only. FR 32(1)
[Dep. Biol., West. Ky. Univ., Bowling Green 42101]

87-001105 Kapetsky, J. M. MANAGEMENT OF FISHERIES ON LARGE AFRICAN RESERVOIRS - AN OVERVIEW. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 28-38. 1986. FR 32(1)
[FAO of the UN, 00100 Rome, Italy]

87-001106 Kimmel, B. L. and A. W. Groeger. LIMNOLOGICAL AND ECOLOGICAL CHANGES ASSOCIATED WITH RESERVOIR AGING. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 103-109. 1986. FR 32(1)
[Environ. Sci. Div., Oak Ridge Natl. Lab., Oak Ridge, TN 37830]

87-001107 Noble, R. L. PREDATOR-PREY INTERACTIONS IN RESERVOIR COMMUNITIES. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 137-143. 1986. FR 32(1)
[Dep. Wildl. Fish. Sci., Tex. A&M Univ., College Station 77843]

87-001108 Olmsted, L. L. and J. P. Clugston. FISHERY MANAGEMENT IN COOLING IMPOUNDMENTS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 227-237. 1986. FR 32(1)
[Duke Power Co., Huntersville, NC 28078]

87-001109 Peters, J. C. ENHANCING TAILWATER FISHERIES. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 278-285. 1986. FR 32(1)
[Bur. Reclam., Eng. Res. Cent., Denver, CO 80225]

87-001110 Ploskey, G. R. EFFECTS OF WATER-LEVEL CHANGES ON RESERVOIR ECOSYSTEMS, WITH IMPLICATIONS FOR FISHERIES MANAGEMENT. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 86-97. 1986. FR 32(1)
[Aquatic Ecosystems Analysts, P.O. Box 4188, Fayetteville, AR 72702]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

87-001111 Prosser, N. S. AN OVERVIEW OF RESERVOIR FISHERIES PROBLEMS AND OPPORTUNITIES RESULTING FROM HYDROPOWER. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 238-246. 1986. FR 32(1)
[Sport Fishing Inst., 608 13th St., Washington, DC 20005]

87-001112 Ruane, R. J.; C. E. Bohac; W. M. Seawell and R. M. Shane. IMPROVING THE DOWNSTREAM ENVIRONMENT BY RESERVOIR RELEASE MODIFICATIONS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 270-277. 1986. FR 32(1)
[TVA, Div. Air Water Resour., Knoxville, TN 37902]

87-001113 Smithson, J. A.; K. F. Kurzawski and T. V. Clevenger. MANAGEMENT OF LARGEMOUTH BASS IN A PERCHED COOLING POND IN ILLINOIS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 255-260. 1986. FR 32(1)
[Ill. Power Co., Clinton Power Stn., Box 678, Clinton, 61727]

87-001114 Spencer, S. L. NEEDS OF RESERVOIR USER-GROUPS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 301-305. 1986. FR 32(1)
[Ala. Dep. Conserv. Nat. Resour., Montgomery 36130]

87-001115 Weithman, A. S. MEASURING THE VALUE AND BENEFITS OF RESERVOIR FISHERIES PROGRAMS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 11-17. 1986. FR 32(1)
[Mo. Dep. Conserv., 1110 College Ave., Columbia 65201]

87-001116 Willis, D. W. REVIEW OF WATER LEVEL MANAGEMENT ON KANSAS RESERVOIRS. *In: G. E. Hall and M. J. Van Den Avyle (eds.). Reservoir Fisheries Management: Strategies for the 80's.* p. 110-114. 1986. FR 32(1)
[Kans. Fish Game Comm., P.O. Box 1525, Emporia 66801]

ESTUARY MANAGEMENT AND RESEARCH

87-001117 Teal, J. M. THE ECOLOGY OF REGULARLY FLOODED SALT MARSHES OF NEW ENGLAND: A COMMUNITY PROFILE. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(7.4). x+61p. 1986. FR 32(1)
[Woods Hole Oceanogr. Inst., Woods Hole, MA 02543]

MARINE MANAGEMENT AND RESEARCH

87-001118 Anderson, L. G. THE PENDULUM SWINGS: A PUBLIC CHOICE HISTORICAL PERSPECTIVE OF EAST COAST GROUNDFISHERIES MANAGEMENT. *Alaska Sea Grant Rep.* 85-2. p. 235-254. 1985. FR 32(1)
[Univ. Del., Newark]

87-001119 Beddington, J. R.; W. E. Arntz; R. S. Bailey; G. D. Brewer; M. H. Glantz; A. J. Y. Laurec; R. M. May; W. P. Nellen; V. S. Smetacek; F. R. M. Thurow; J. P. Troadec and C. J. Walters. MANAGEMENT UNDER UNCERTAINTY. *IN:*

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

87-001119 CONTINUED *R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 227-244. 1984. FR 32(1)

87-001120 Beddington, J. R. THE RESPONSE OF MULTISPECIES SYSTEMS TO PERTURBATIONS. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 209-225. 1984. FR 32(1)
[Dep. Biol., Univ. York, Heslington, York Y01 5DD, England]

87-001121 Charbonnier, D. (ed.). REPORT OF THE FOURTH TECHNICAL CONSULTATION OF THE GENERAL FISHERIES COUNCIL FOR THE MEDITERRANEAN ON STOCK ASSESSMENT IN THE BALEARIC AND GULF OF LIONS STATISTICAL DIVISIONS. *FAO Fish. Rep.* No. 347. viii+231p. 1986. In English and French. FR 32(1)
[FAO of the UN, Rome, Italy]

87-001122 Dykstra, J. J. and J. A. Wilson. EAST COAST GROUNDFISH EXPERIENCE: INDUSTRY PERSPECTIVE. *Alaska Sea Grant Rep.* 85-2. p. 223-233. 1985. FR 32(1)
[Point Judith, RI]

87-001123 Easley, G. J. WEST COAST GROUNDFISH MANAGEMENT: AN INDUSTRY VIEW. *Alaska Sea Grant Rep.* 85-2. p. 279-283. 1985. FR 32(1)
[Pac. Fish. Manage. Council, Portland, OR]

87-001124 FAO of the UN. REPORT OF THE EIGHTH SESSION OF THE COMMITTEE FOR THE MANAGEMENT OF INDIAN OCEAN TUNA. *FAO Fish. Rep.* No. 351. v+24p. 1986. FR 32(1)
[Rome, Italy]

87-001125 FAO of the UN. REPORT OF THE WORKSHOP ON FISHERIES DEVELOPMENT PLANNING IN THE WECAFC REGION. *FAO Fish. Rep.* No. 359. vi+22p. 1986. FR 32(1)
[Rome, Italy]

87-001126 FAO of the UN. REPORT OF THE SECOND SESSION OF THE COMMITTEE FOR THE DEVELOPMENT AND MANAGEMENT OF FISHERIES IN THE LESSER ANTILLES. *FAO Fish. Rep.* No. 349. vi+41p. 1986. FR 32(1)
[Rome, Italy]

87-001127 FAO of the UN. COMMISSION FOR INLAND FISHERIES OF LATIN AMERICA. REPORT OF THE SECOND SESSION OF THE WORKING PARTY ON FISHERIES TECHNOLOGY. *FAO Fish. Rep.* No. 354. v+21p. 1986. In English and Spanish. FR 32(1)
[Rome, Italy]

87-001128 Francis, R. C. FISHERIES RESEARCH AND ITS APPLICATION TO WEST COAST GROUNDFISH MANAGEMENT. *Alaska Sea Grant Rep.* 85-2. p. 285-307. 1985. FR 32(1)
[NMFS, Seattle, WA]

87-001129 Garcia, S. and A. Demetropoulos. MANAGEMENT OF CYPRUS FISHERIES. *FAO Fish. Tech. Pap.* 250. v+40p. 1986. FR 32(1)
[FAO of the UN, Rome, Italy]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

87-001130 Gjedrem, T. BREEDING PLAN FOR SEA RANCHING. *Aquaculture* 57(1-4):77-80. 1986. FR 32(1)
[Agric. Res. Counc. Norway, Inst. Aquacult. Res., 1432 As-NLH, Norway]

87-001131 Grove, R. S. and C. J. Sonu. APPLICATION OF JAPANESE TECHNOLOGY TO ARTIFICIAL REEF DESIGN IN SOUTHERN CALIFORNIA. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM4/1. 1984. Abstract only. FR 32(1)
[South. Calif. Edison Co., Rosemead, CA]

87-001132 Halliday, R. G.; J. McGlade; R. Mohn; R. N. O'Boyle and M. Sinclair. RESOURCE AND FISHERY DISTRIBUTIONS IN THE GULF OF MAINE AREA IN RELATION TO THE SUBAREA 4/5 BOUNDARY. *Northwest Atl. Fish. Organ. Sci. Counc. Stud.* No. 10. p. 67-92. 1986. FR 32(1)
[Dep. Fish. Oceans, P.O. Box 550, Halifax, NS B3J 2S7, Canada]

87-001133 Huppert, D. D. PACIFIC COAST GROUNDFISH MANAGEMENT: EVOLUTION AND PROSPECTS. *Alaska Sea Grant Rep.* 85-2. p. 309-338. 1985 FR 32(1)
[NMFS, La Jolla, CA]

87-001134 Koch, C. L. LEGAL TOOLS AND RESTRICTIONS AFFECTING FISHERIES MANAGEMENT. *Alaska Sea Grant Rep.* 85-2. p. 149-182. 1985. FR 32(1)

87-001135 Messieh, S.; R. Pottle; P. MacPherson and T. Hurlbut. SPAWNING AND EXPLOITATION OF ATLANTIC HERRING *(CLUPEA HARENGUS)* AT ESCUMINAC IN THE SOUTHWESTERN GULF OF ST. LAWRENCE, SPRING 1983. *J. Northwest. Atl. Fish. Sci.* 6(2):125-133. 1985. FR 32(1)
[Dep. Fish. Oceans, P.O. Box 5030, Moncton, NB E1C 9B6, Canada]

87-001136 Miller, D. L. ECOLOGY, TECHNOLOGY, TERRITORIALITY AND THE EVOLUTION OF MEXICO'S CARIBBEAN FISHERY. *Prog. IV Int. Congr. Ecol.* p. 240. 1986. Abstract only. FR 32(1)
[State Univ. N.Y., Cortland 13045]

87-001137 Onizuka, E. W. HAWAII'S ARTIFICIAL REEF PROGRAM. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM4/2-MRM4/7. 1984. FR 32(1)
[Div. Aquatic Resour., Dep. Land Nat. Resour., Honolulu, HI]

87-001138 Pringle, J. D. PROBLEMS IN ATTAINING UNEQUIVOCAL BIOLOGICAL ADVICE FOR COMMON-PROPERTY FISHERY RESOURCES. *Prog. IV Int. Congr. Ecol.* p. 276. 1986. Abstract only. FR 32(1)
[Halifax Fish. Res. Lab., Halifax, NS B3J 2S7, Canada]

87-001139 Reddin, D. G. ATLANTIC SALMON *(SALMO SALAR)* ON AND EAST OF THE GRAND BANK. *J. Northwest. Atl. Fish. Sci.* 6(2):157-164. 1985. FR 32(1)
[Dep. Fish. Oceans, P.O. Box 5667, St. John's, NF A1C 5X1, Canada]

87-001140 Sathre, C. SALMON INTERCEPTION ON THE HIGH SEAS: A CONTINUING CONTROVERSY BETWEEN THE UNITED STATES AND JAPAN. *Environ. Law* 16(3):731-755. 1986. FR 32(1)

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

87-001141 Shepherd, J. G. THE AVAILABILITY AND INFORMATION CONTENT OF FISHERIES DATA. *IN: R. M. May, (ed.). Exploitation of Marine Communities. Springer-Verlag.* p. 95-109. 1984. FR 32(1)
[Dir. Fish. Res. Fish. Lab., Lowestoft, Suffolk NR33 OHT, England]

87-001142 Sherman, K. and L. M. Alexander, (eds.). VARIABILITY AND MANAGEMENT OF LARGE MARINE ECOSYSTEMS. *AAAS Sel. Symp. Ser.* 99. 319p. 1986. Available @ $31.85. from Westview Press, Boulder, CO. FR 32(1)

87-001143 Shimomura, Y. and T. Suzuki. DEVELOPMENT OF BIG-SIZED ARTIFICIAL FISHING REEFS UTILIZING FLY ASH. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM4/9-MRM4/15. 1984. FR 32(1)
[Hazama-Gumi, Ltd., Minato-ku, Tokyo, Japan]

87-001144 Sissenwine, M. P. and G. D. Marchesseault. NEW ENGLAND GROUNDFISH MANAGEMENT: A SCIENTIFIC PERSPECTIVE ON THEORY AND REALITY. *Alaska Sea Grant Rep.* 85-2. p. 255-278. 1985. FR 32(1)
[NMFS, Woods Hole, MA]

87-001145 Sonu, C. J. and R. S. Grove. ENGINEERING ASPECTS OF ARTIFICIAL REEF DESIGN. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM4/8. 1984. Abstract only. FR 32(1)
[Tekmarine, Inc., Sierra Madre, CA]

87-001146 Stevens, T. UNITED STATES-CANADA SALMON TREATY NEGOTIATIONS: THE ALASKAN PERSPECTIVE. *Environ. Law* 16(3):423-430. 1986. FR 32(1)

87-001147 Stohr, A. J. M. and M. E. Fraidenburg. A DELPHI ASSESSMENT OF CHINOOK AND COHO SALMON HOOKING MORTALITY. *Wash. Dep. Fish. Tech. Rep.* 94. 91p. 1986. FR 32(1)

87-001148 Wilkerson, W. SHOULD THE FEDERAL ROLE IN MFCMA MANAGEMENT BE PLAYED "BACK THERE" OR "OUT HERE"? *Alaska Sea Grant Rep.* 85-2. p. 87-98. 1985. FR 32(1)
[Wash. Dep. Fish., Olympia]

87-001149 Windsor, M. THE NASCO TREATY TO MANAGE SALMON IN THE NORTH ATLANTIC. *Scott. Fish. Bull.* 49. p.21-24. 1986. FR 32(1)
[North Atl. Salmon Conserv. Organ., 11 Rutland Sq., Edinburgh, Scotland]

87-001150 Yanez-Arancibia, A. TROPICAL COASTAL FISHERIES MANAGEMENT, ECOLOGICAL DEVELOPMENT AND ESTUARY-SHELF-OIL-FISH INTERACTIONS. *Prog. IV Int. Congr. Ecol.* p. 360. 1986. Abstract only. FR 32(1)
[Inst. Mar. Sci. Limnol., 04510, Mexico DF, Mexico]

UTILIZATION OF FISHERY PRODUCTS

87-001151 FAO of the UN. FISH PROCESSING IN AFRICA: PROCEEDINGS OF THE FAO EXPERT CONSULTATION ON FISH TECHNOLOGY IN AFRICA. *FAO Fish. Rep.* No. 329(Suppl.) vii+474p. 1986. FR 32(1)
[Rome, Italy] A collection of papers.--RS.

MISC. TECHNIQUES AND EQUIPMENT

87-001152 Bartholow, J. M. and T. J. Waddle. INTRODUCTION TO STREAM NETWORK HABITAT ANALYSIS. INSTREAM FLOW INFORMATION PAPER NO. 22. *U.S. Fish Wildl. Serv. Biol. Rep.* 86(8). ix+242p. 1986. FR 32(1)
[U.S. FWS, 2627 Redwing Rd., Fort Collins, CO 80526-2899]

87-001153 Benz, G. W. and R. P. Jacobs. PRACTICAL FIELD METHODS OF SEXING LARGEMOUTH BASS. *Prog. Fish-Cult.* 48(3):221-225. 1986. FR 32(1)
[Dep. Zool., 6270 University Blvd., Univ. British Columbia, Vancouver, BC V6T 2A9, Canada]

87-001154 Bovee, K. D. DEVELOPMENT AND EVALUATION OF HABITAT SUITABILITY CRITERIA FOR USE IN THE INSTREAM FLOW INCREMENTAL METHODOLOGY. INSTREAM FLOW PAPER NO. 21. *U.S. Fish Wildl. Serv. Biol. Rep.* 86(7). xxv+235p. 1986. FR 32(1)
[U.S. FWS, 2727 Redwing Rd., Fort Collins, CO 80526-2899]

87-001155 Ehrenberg, J. E.; J. J. Traynor; and V. M. Kaczynski. THE APPLICATION OF MULTIBEAM ACOUSTIC TECHNIQUES TO MARINE RESOURCE ASSESSMENT. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. MRM1/8-MRM1/14. 1984. FR 32(1)
[NMFS, Seattle, WA]

87-001156 Gee, D. M. and D. B. Wilcox. USE OF TWO-DIMENSIONAL FLOW MODEL TO QUANTIFY AQUATIC HABITAT. *U.S. Army Corps Eng. Hydrol. Eng. Cent. Tech. Pap.* No. 105. 9p. 1985. FR 32(1)
[U.S. Army Corps Eng. Hydrol. Eng. Cent., 609 Second St., Davis, CA 95616]

87-001157 Hoffman, R. J. A HORIZONTAL INTRAGRAVEL PIPE FOR SAMPLING WATER QUALITY IN SALMONID SPAWNING GRAVEL. *N. Am. J. Fish. Manage.* 6(3): 445-448. 1986. FR 32(1)
[U.S.G.S., Room 227, Fed. Bldg., 705 North Plaza St., Carson City, NV 89701]

87-001158 Jastrzebski, Z. T. TECHNIQUE OF MAKING FISH ILLUSTRATION 23. *Environ. Biol. Fishes* 17(3):234. 1986. FR 32(1)
[Field Mus. Nat. Hist., Roosevelt Rd. and Lake Shore Dr., Chicago, IL 60605-2496]

87-001159 Laurs, R. M. APPLICATION OF SATELLITE REMOTE SENSING TO U.S. FISHERIES. *IN: W. Kato, (ed.). Ocean Space Utilization '85. Proc. Int. Symp. Nihon Univ., Tokyo, Japan, June 1985. Vol. 1.* p. 755-763. 1985. FR 32(1)
[NMFS, Southwest Fish. Cent., La Jolla, CA 92038]

87-001160 Montgomery, D. R. SATELLITE OBSERVATIONS FOR COMMERCIAL FISHING APPLICATIONS IN THE PACIFIC BASIN. *IN: PACON 84: Proceedings of the Pacific Congress on Marine Technology.* p. OST2/13-OST2/22. 1984. FR 32(1)
[Jet Propulsion Lab., Calif. Inst. Technol., Pasadena]

87-001161 Murray, L. M. and K. E. Gilbert. NORMAL MODE PROPAGATION IN A COMMERCIAL CATFISH POND. *J. Acoust. Soc. Am.* 80(Suppl. 1):S63. 1986. Abstract only. FR 32(1)
[Inst. Technol. Dev., 3825 Ridgewood Rd., Jackson, MS 39211]

MISC. TECHNIQUES AND EQUIPMENT (CONTINUED)

87-001162 Roff, J. C. and R. R. Hopcroft. HIGH PRECISION MICROCOMPUTER BASED MEASURING SYSTEM FOR ECOLOGICAL RESEARCH. *Can. J. Fish. Aquatic Sci.* 43(10):2044-2048. 1986. In English with French summ. FR 32(1)
[Dep. Zool., Univ. Guelph, Guelph, ON N1G 2W1, Canada]

87-001163 Williams, H. COLLECTION AND STORAGE OF DATA IN THE TRAWL, PURSE SEINE AND DROP-LINE FISHERIES. *Tasmania Mar. Lab. Tech. Rep.* 8. 26p. 1986. FR 32(1)
[Tasmania Dep. Sea Fish., Mar. Lab., Crayfish Point, Taroona, Australia 7006]

REVIEWS, BIBLIOGRAPHIES, ETC.

87-001164 Hulsman, S. G.; W. A. Palsson and G. J. Hueckel. AN ANNOTATED BIBLIOGRAPHY OF PUGET SOUND NEARSHORE HABITAT AND MARINE FISH LIFE HISTORY STUDIES. *Wash. Dep. Fish. Tech. Rep.* 91. 66p. 1986. FR 32(1)

87-001165 Thomas, A. E. and C. Wentzell. A BIBLIOGRAPHY OF RIPARIAN TOPICS WITH EMPHASIS ON THE INTERMOUNTAIN WEST. *Idaho BLM Tech. Bull.* 8604. 47p. 1986. FR 32(1)
[BLM, Idaho State Off., 3380 Americana Terrace, Boise, ID 83706]

WATER USE AND CONSERVATION

87-001166 FAO of the UN. STRATEGIES, APPROACHES AND SYSTEMS IN INTEGRATED WATERSHED MANAGEMENT. *FAO Conserv. Guide* 14. vi+232p. 1986. FR 32(1)
[Rome, Italy]

87-001167 Winger, P. V. FORESTED WETLANDS OF THE SOUTHEAST: REVIEW OF MAJOR CHARACTERISTICS AND ROLE IN MAINTAINING WATER QUALITY. *U.S. Fish Wildl. Serv. Resour. Publ.* 163. ii+16p. 1986. FR 32(1)
[U.S. FWS, Sch. For. Resour., Univ. Ga., Athens 30602]

Abdullah, H.
87-000142
Abraham, M.
87-000026
Abrahamsen, H.
87-000846
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87-000389
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87-000300
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87-000852
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87-000909
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87-000027
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87-000229
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87-000068
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87-001058
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87-000153
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87-000154
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87-000155
87-000218
87-000659
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87-001142
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87-000156
87-000660
87-000681
87-000772
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87-000050
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87-001119
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87-000140
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87-000727
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87-001059
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87-000880

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87-000715
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87-000035
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87-000307
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87-000598
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37-001119
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87-000105
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87-000353
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87-000431
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87-000270
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87-000807
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87-000027
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87-000392
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87-000810
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87-000106
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87-001152
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...CONTINUED...
Bass, A. H.
87-000354
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87-000505
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87-000780
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87-000728
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87-000308
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87-000621
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87-000163
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87-001031
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87-000484
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87-000588
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87-000059
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87-000478
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87-000507
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87-000622
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87-000168
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87-001088
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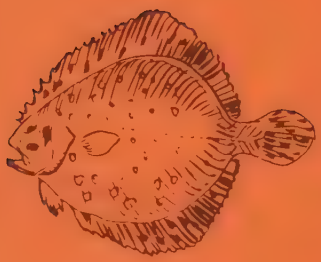

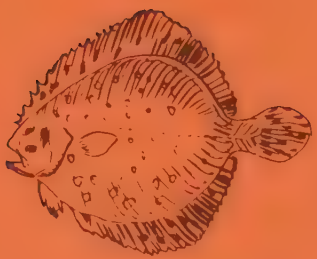

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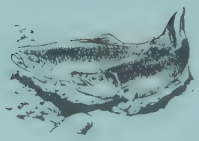

Administrative Reports
General/Annual Reports
87-000945
Int. Natl. Halibut Comm./Annu. Rep. 1985
87-000944
Aquatic Plants
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87-000868
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87-000047
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Riparian Habitat
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87-001164
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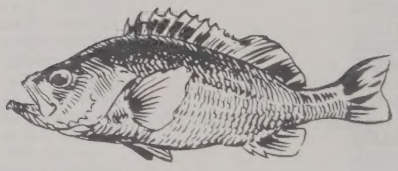

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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